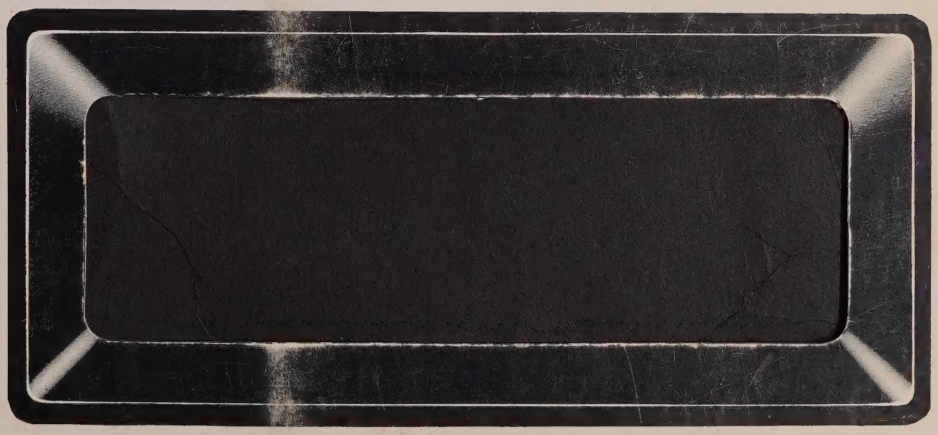
FAIRCHILD

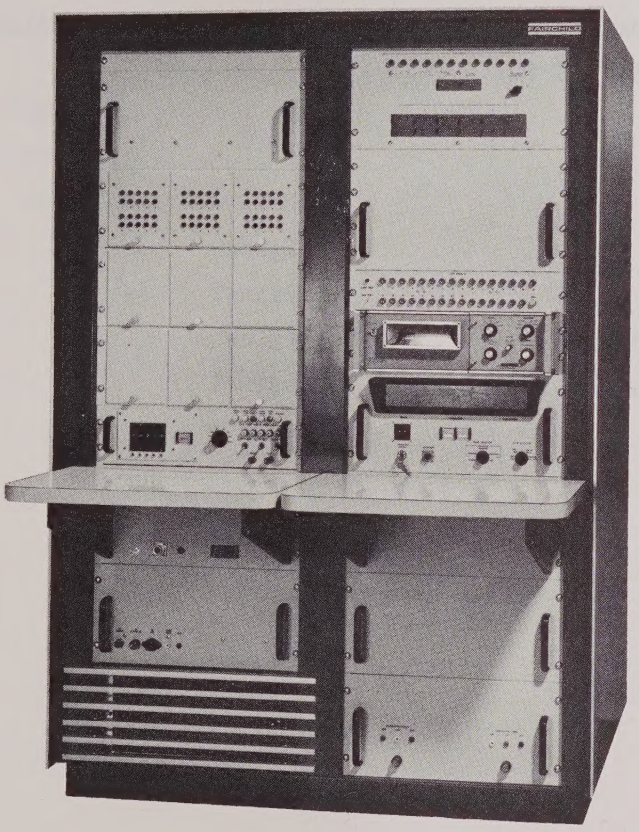


MP MASTER
MA29939

PALO ALTO, CALIFORNIA

W. WAJDA

FAIRCHILD



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AUTOMATIC INTEGRATED
CIRCUIT TEST SYSTEM
Vol. 2

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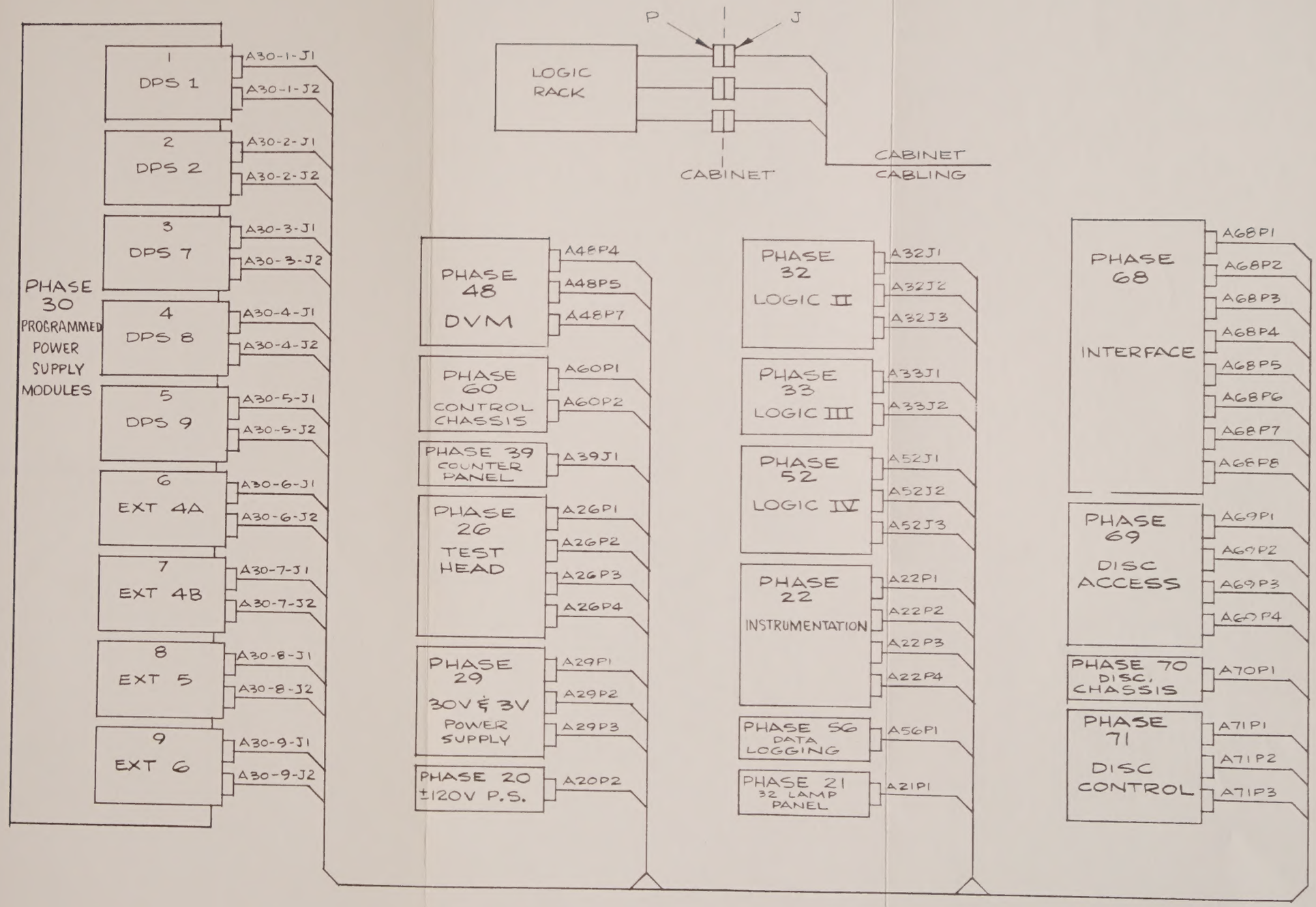

Figure 5-2 Cabinet Cable Diagram

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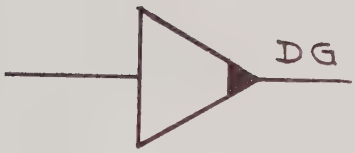
PIN	FUNCTION
C	IN 1
B	OUT 1
E	IN 2
D	OUT 2
H	IN 3
F	OUT 3
K	IN 4
J	OUT 4
M	IN 5
L	OUT 5
P	IN 6
N	OUT 6
S	IN 7
R	OUT 7
U	IN 8
T	OUT 8
W	IN 9
V	OUT 9
Y	IN 10
X	OUT 10
Z	GRD-COM



STANDARD RELAY/LAMP DRIVER

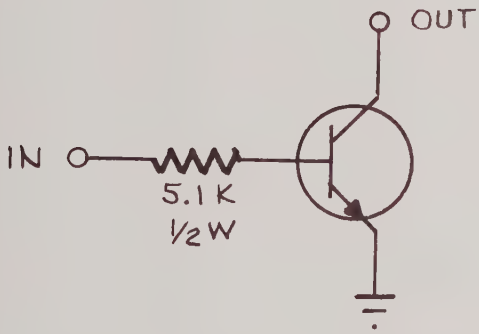
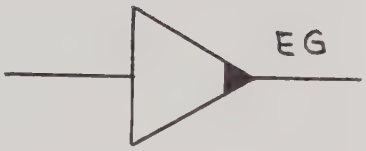


Figure 5-3 Logic Board - DG

PIN	FUNCTION
B	OUT 1
C	IN 1
D	OUT 2
E	IN 2
F	OUT 3
H	IN 3
J	OUT 4
K	IN 4
L	OUT 5
M	IN 5
N	OUT 6
P	IN 6
R	OUT 7
S	IN 7
T	OUT 8
U	IN 8
V	OUT 9
W	IN 9
X	OUT 10
Y	IN 10
Z	GRD-COM



ONE INPUT SLAVE GATE

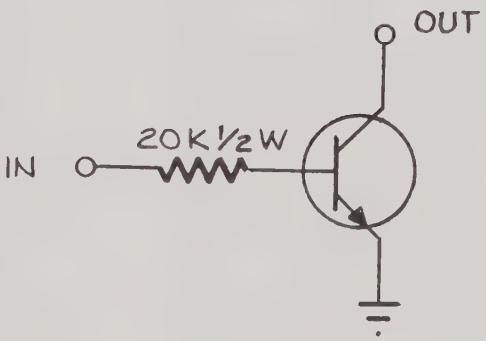


Figure 5-4 Logic Board - EG

PIN	FUNCTION
B	OUT 1
C	IN 1
D	OUT 2
E	IN 2
F	OUT 3
H	IN 3
J	OUT 4
K	IN 4
L	OUT 5
M	IN 5
N	OUT 6
P	IN 6
R	OUT 7
S	IN 7
T	OUT 8
U	IN 8
V	OUT 9
W	IN 9
X	OUT 10
Y	IN 10
Z	GRD-COM
A	V_{CC}

ONE INPUT GATE

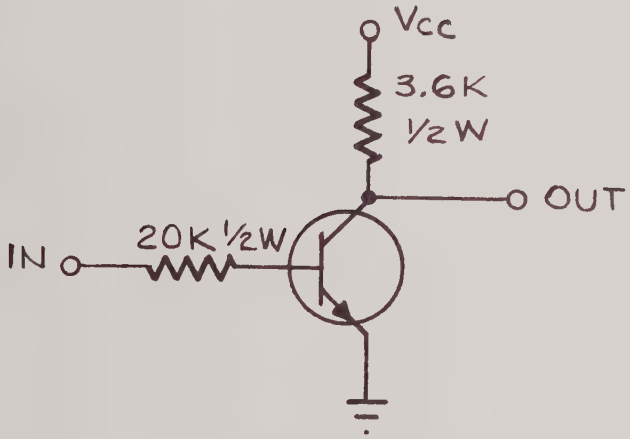
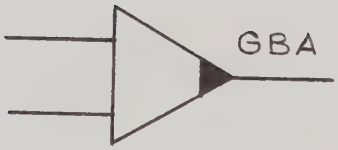


Figure 5-5 Logic Board - FG

PIN	FUNCTION
D	OUT 1
E	IN 1-1
F	IN 1-2
H	OUT 2
J	IN 2-1
K	IN 2-2
L	OUT 3
M	IN 3-1
N	IN 3-2
P	OUT 4
R	IN 4-1
S	IN 4-2
T	OUT 5
U	IN 5-1
V	IN 5-2
W	OUT 6
X	IN 6-1
Y	IN 6-2
Z	GRD-COM



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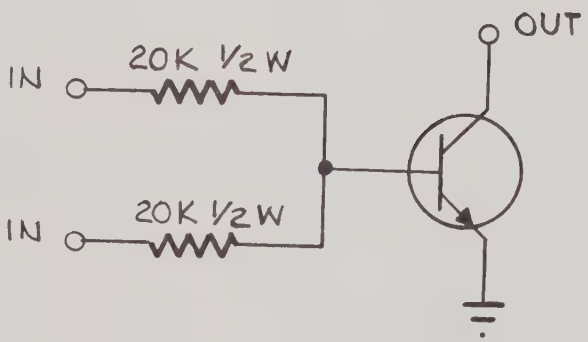
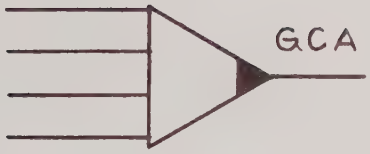


Figure 5-6 Logic Board - GBA

PIN	FUNCTION
B	OUT 1
C	IN 1-1
D	IN 1-2
E	IN 1-3
F	IN 1-4
H	OUT 2
J	IN 2-1
K	IN 2-2
L	IN 2-3
M	IN 2-4
N	OUT 3
P	IN 3-1
R	IN 3-2
S	IN 3-3
T	IN 3-4
U	OUT 4
V	IN 4-1
W	IN 4-2
X	IN 4-3
Y	IN 4-4
Z	GRD-COM



4-INPUT SLAVE GATE

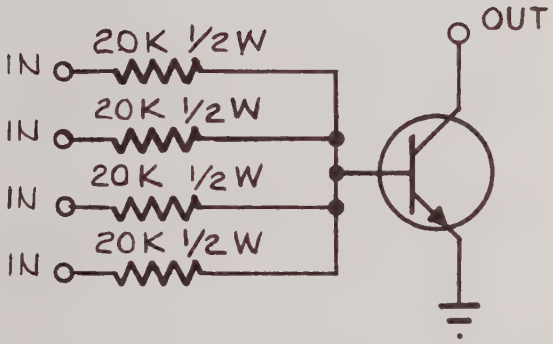
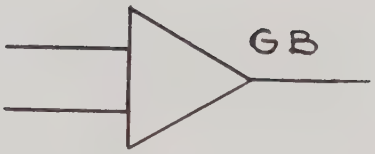


Figure 5-7 Logic Board - GCA

PIN	FUNCTION	
D	OUT	1
E	IN	1-1
F	IN	1-2
H	OUT	2
J	IN	2-1
K	IN	2-2
L	OUT	3
M	IN	3-1
N	IN	3-2
P	OUT	4
R	IN	4-1
S	IN	4-2
T	OUT	5
U	IN	5-1
V	IN	5-2
W	OUT	6
X	IN	6-1
Y	IN	6-2
Z	GRD-COM	
A	V_{CC}	



2 INPUT GATE

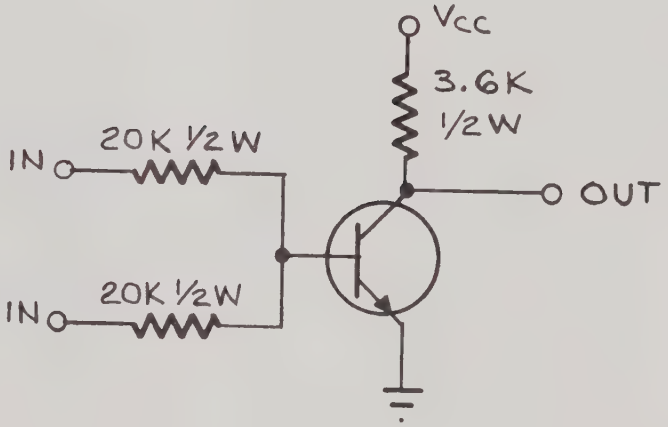


Figure 5-8 Logic Board - GB

PIN	FUNCTION	
B	OUT	1
C	IN	1-1
D	IN	1-2
E	IN	1-3
F	IN	1-4
H	OUT	2
J	IN	2-1
K	IN	2-2
L	IN	2-3
M	IN	2-4
N	OUT	3
P	IN	3 1
R	IN	3 2
S	IN	3 3
T	IN	3 4
U	OUT	4
V	IN	4-1
W	IN	4-2
X	IN	4-3
Y	IN	4-4
Z	GRD-COM	
A	Vcc	

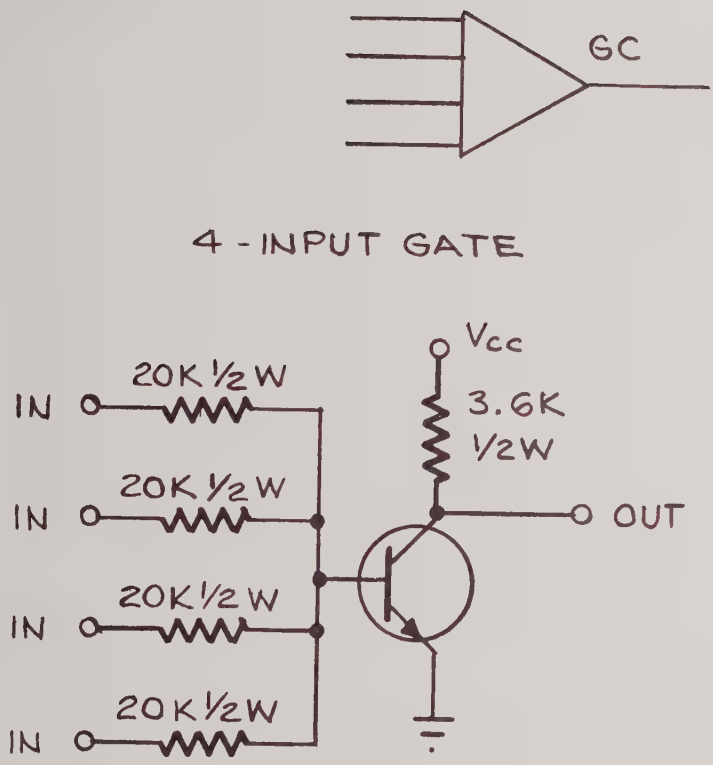


Figure 5-9 Logic Board - GC

PIN	FUNCTION
A	V_{CC}
D	OUT 1
E	IN 1-1
F	IN 1-2
H	OUT 2
J	IN 2-1
K	IN 2-2
L	OUT 3
M	IN 3-1
N	IN 3-2
P	OUT 4
R	IN 4-1
S	IN 4-2
T	OUT 5
U	IN 5-1
V	IN 5-2
W	OUT 6
X	IN 6-1
Y	IN 6-2
Z	GRD

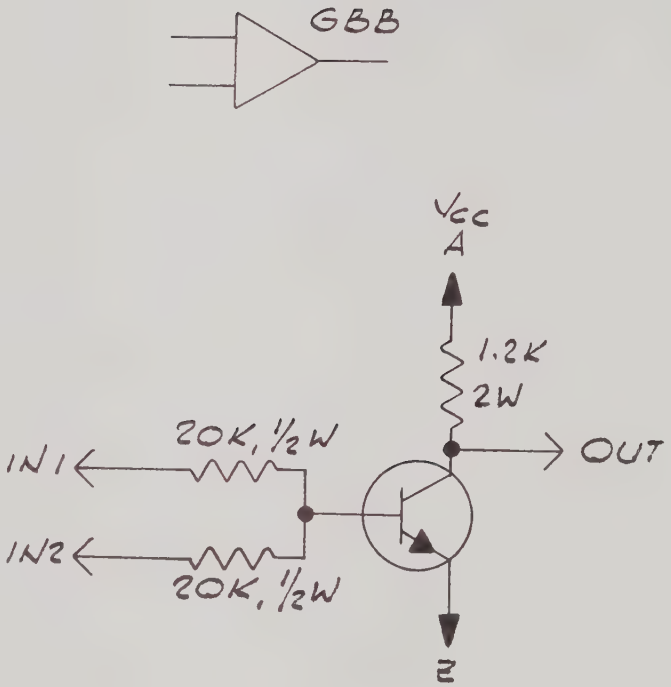


Figure 5-10 Logic Board - GBB

PIN	FUNCTION
A	V_{CC}
B	OUT 1
C	IN 1-1
D	IN 1-2
E	IN 1-3
F	IN 1-4
H	OUT 2
J	IN 2-1
K	IN 2-2
L	IN 2-3
M	IN 2-4
N	OUT 3
P	IN 3-1
R	IN 3-2
S	IN 3-3
T	IN 3-4
U	OUT 4
V	IN 4-1
W	IN 4-2
X	IN 4-3
Y	IN 4-4
Z	GRD

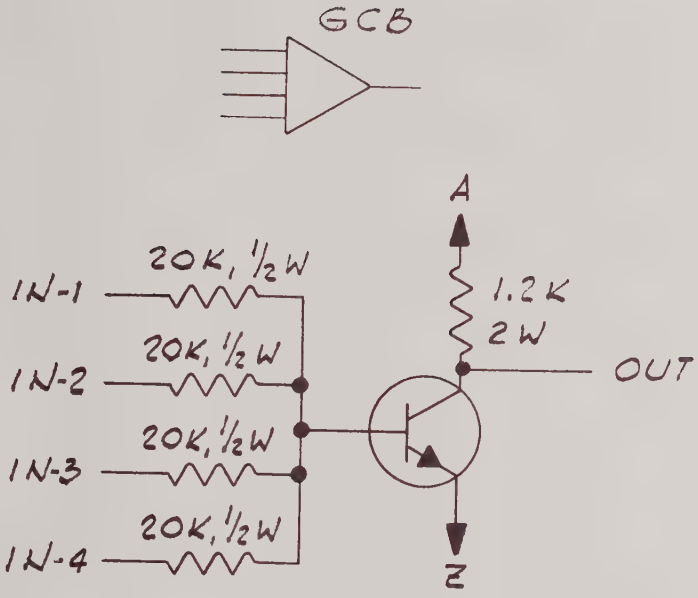
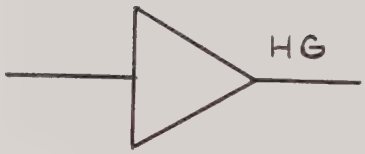


Figure 5-11 Logic Board - GCB

PIN	FUNCTION
B	OUT 1
C	IN 1
D	OUT 2
E	IN 2
F	OUT 3
H	IN 3
J	OUT 4
K	IN 4
L	OUT 5
M	IN 5
N	OUT 6
P	IN 6
R	OUT 7
S	IN 7
T	OUT 8
U	IN 8
V	OUT 9
W	IN 9
X	OUT 10
Y	IN 10
Z	GRD-COM
A	Vcc



LOGIC DRIVER WITH
SPECIAL COLLECTOR RESISTOR

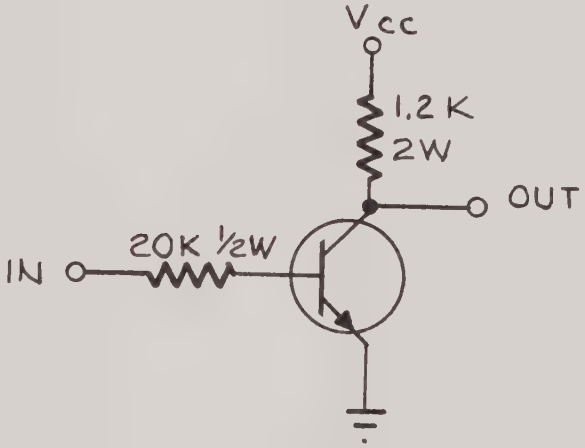
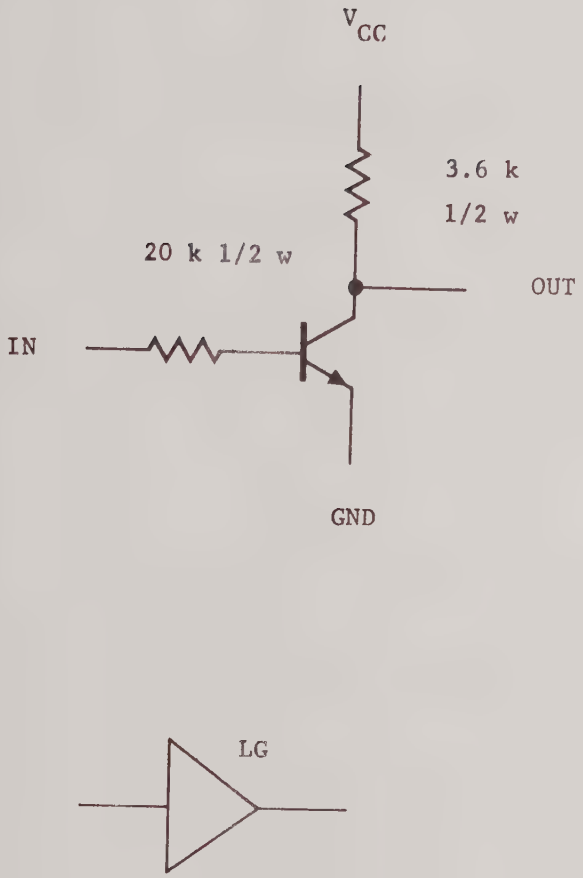


Figure 5-12 Logic Board - HG

Pin	Function	
A	V_{CC}	
B	OUT	GATE 1
C	IN	
D	OUT	GATE 2
E	IN	
F	OUT	GATE 3
H	IN	
J	OUT	GATE 4
K	IN	
L	OUT	GATE 5
M	IN	
N	OUT	GATE 6
P	IN	
R	OUT	GATE 7
S	IN	
T	OUT	GATE 8
U	IN	
V	OUT	GATE 9
W	IN	
X	OUT	GATE 10
Y	IN	
Z	GND	



Pin Assignment

NOTES: a. LG is one input gate
b. There are 10 gates per board
c. Board number: 601012

Figure 5-13 Logic Board - LG

PIN	FUNCTION
B	OUT 1
C	IN 1
D	OUT 2
E	IN 2
F	OUT 3
H	IN 3
J	OUT 4
K	IN 4
L	OUT 5
M	IN 5
N	OUT 6
P	IN 6
R	OUT 7
S	IN 7
T	OUT 8
U	IN 8
V	OUT 9
W	IN 9
X	OUT 10
Y	IN 10
Z	GND. COM
A	Vcc

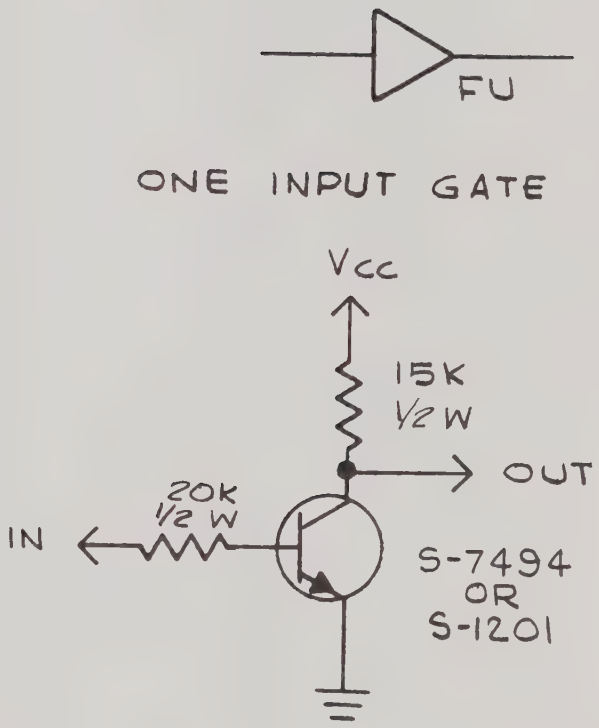


Figure 5-14 Logic Board - FU

PIN	FUNCTION
B	OUT 1
C	IN 1
D	OUT 2
E	IN 2
F	OUT 3
H	IN 3
J	OUT 4
K	IN 4
L	OUT 5
M	IN 5
N	OUT 6
P	IN 6
R	OUT 7
S	IN 7
T	OUT 8
U	IN 8
V	OUT 9
W	IN 9
X	OUT 10
Y	IN 10
Z	GND. COM
A	Vcc

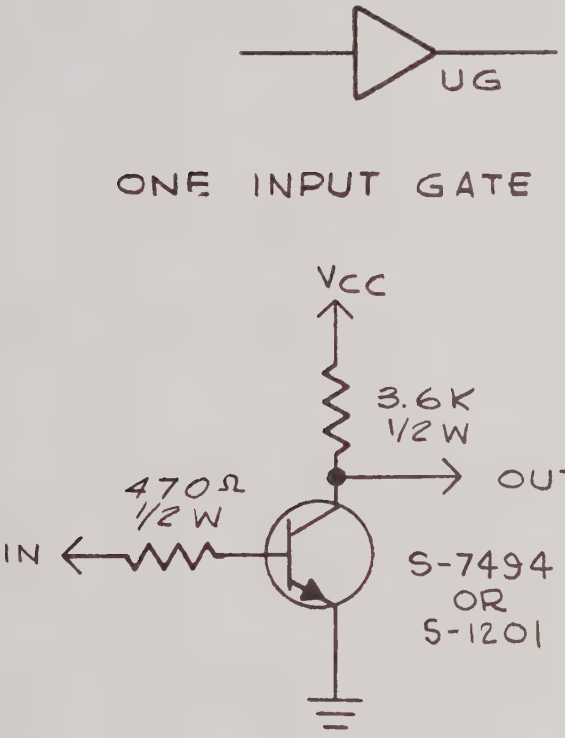


Figure 5-15 Logic Board - UG

PIN	FUNCTION
B	OUT 1
C	IN 1
D	OUT 2
E	IN 2
F	OUT 3
H	IN 3
J	OUT 4
K	IN 4
L	OUT 5
M	IN 5
N	OUT 6
P	IN 6
R	OUT 7
S	IN 7
T	OUT 8
U	IN 8
V	OUT 9
W	IN 9
X	OUT 10
Y	IN 10
Z	GND. COM
A	Vcc

ONE INPUT GATE

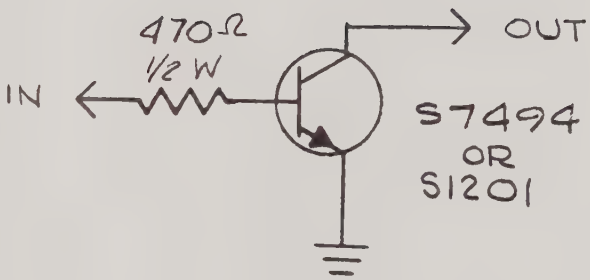
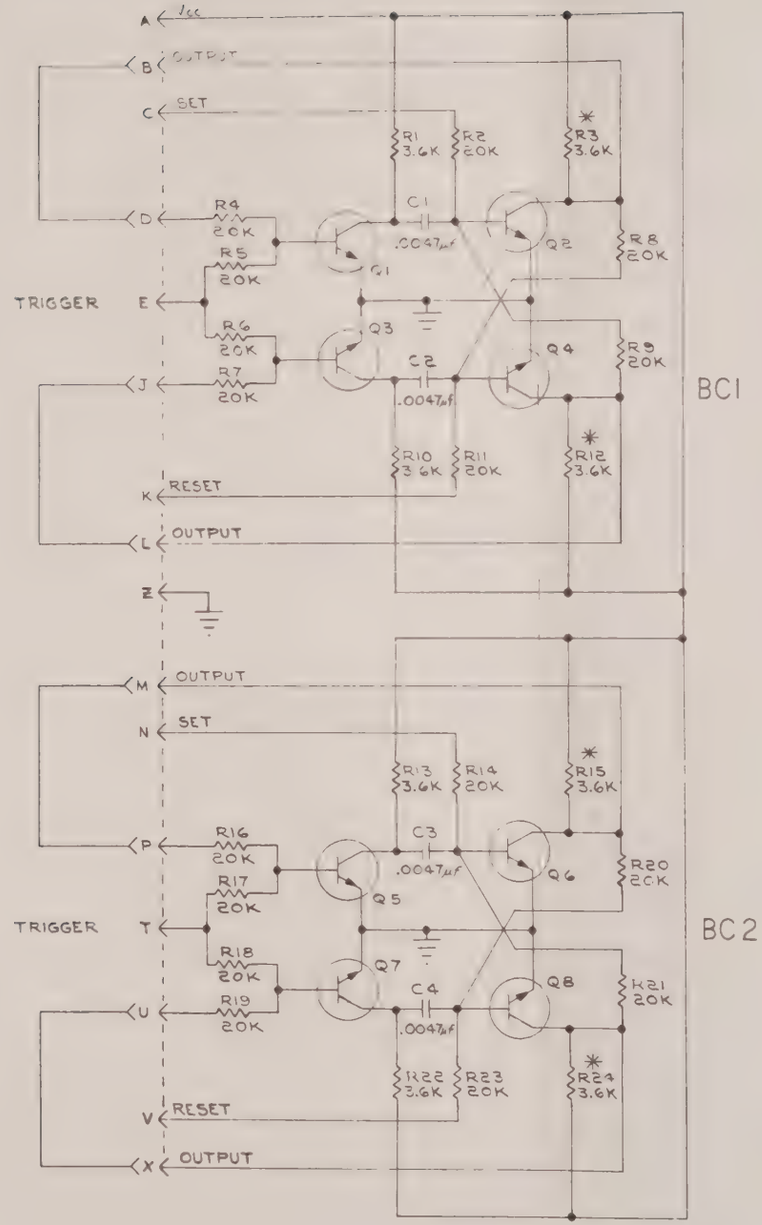


Figure 5-16 Logic Board - UGA



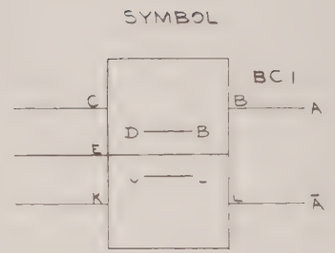
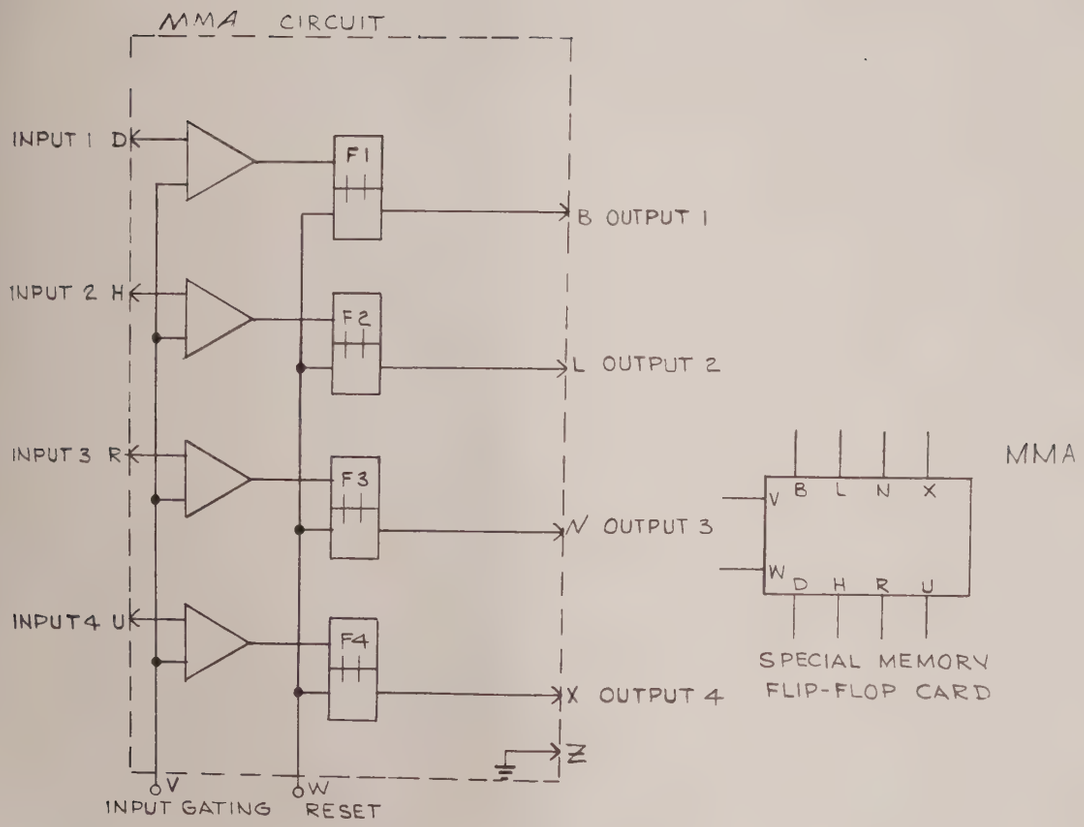
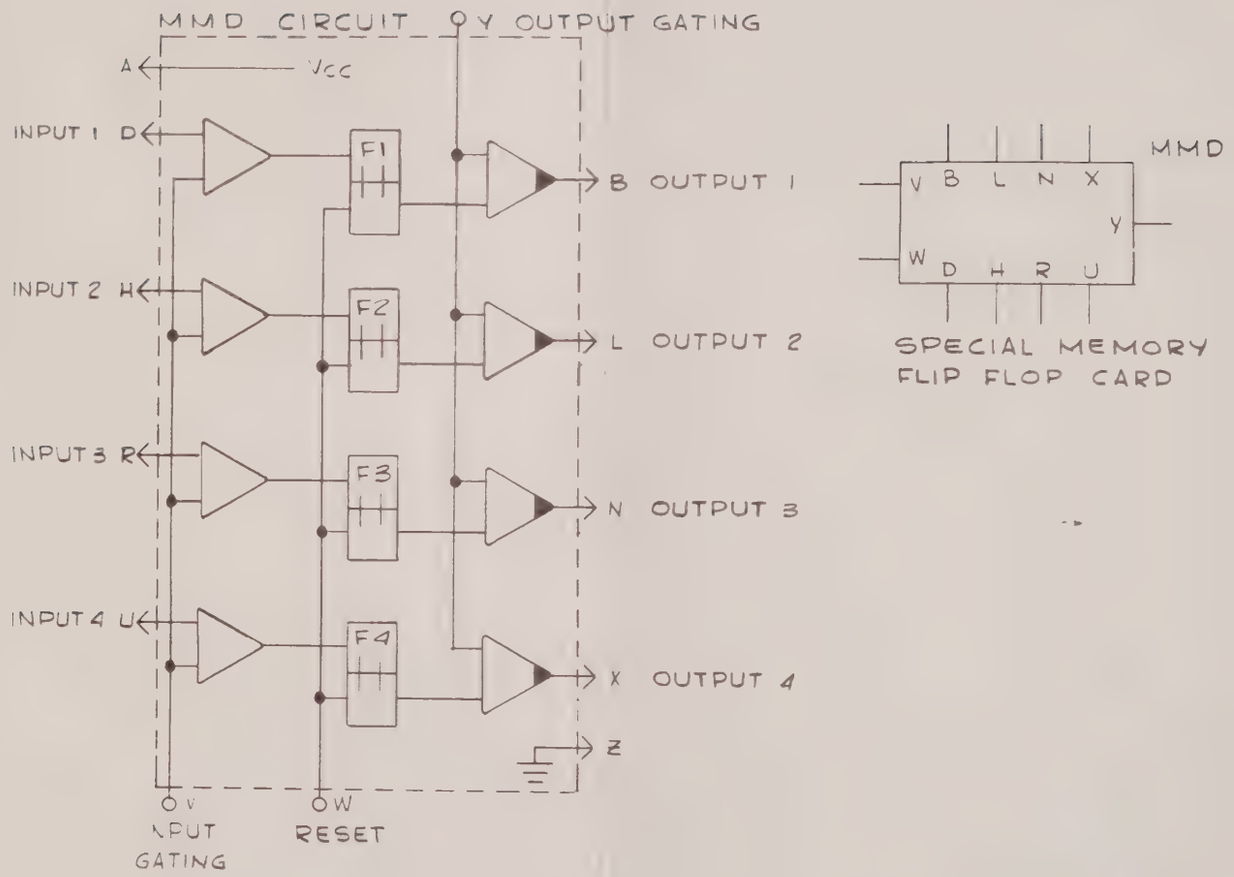


Figure 5-17 Logic Board Types BC And BCA (Binary Counter) Schematic





B601553

Figure 5-18 Logic Board - Types MMA And MMD (Memory) Schematic

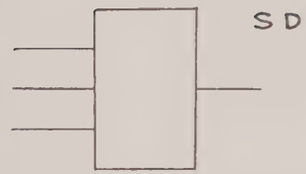
PULSE WIDTHS FOR ± 20% TANTALUM (OR OTHER) CAPACITORS AND RESISTANCE VALUES OF 10K MIN. AND 51K MAX.

C*	T*			
	R_{MIN}		R_{MAX}	
	C_{MIN}	C_{MAX}	C_{MIN}	C_{MAX}
0.33	0.52	0.78	2.6	3.9
1.0	1.6	2.4	8.0	12.0
3.3	5.2	7.8	26.0	39.0
10.0	16.0	24.0	80.0	120.0
33.0	52.0	78.0	260.0	390.
100.	160.	240.	800.	1200.

* IF C IS IN NANOFARADS T IS IN MICRO SECONDS
" " " " MICROFARADS " " " MILLI SECONDS

PIN	FUNCTION
C	IN 1-1
D	IN 1-2
E	IN 1-3
B	OUT 1
M	IN 2-1
N	IN 2-2
P	IN 2-3
L	OUT 2
W	IN 3-1
X	IN 3-2
Y	IN 3-3
V	OUT 3
A	V_{CC}
Z	GRD - COM
F, H, J, K, R, S, T, U	NOT USED

SYMBOL



NOTE: PULSE WIDTH TO BE SPECIFIED IN BLOCK

STANDARD SINGLE-SHOT BOARD

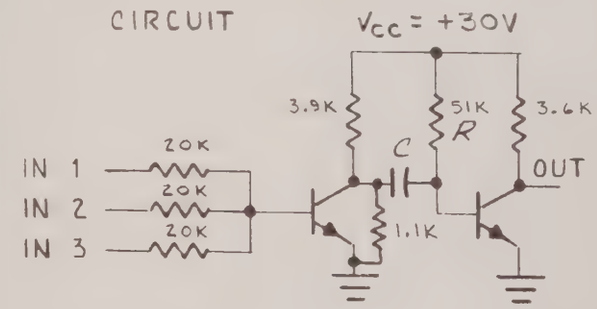
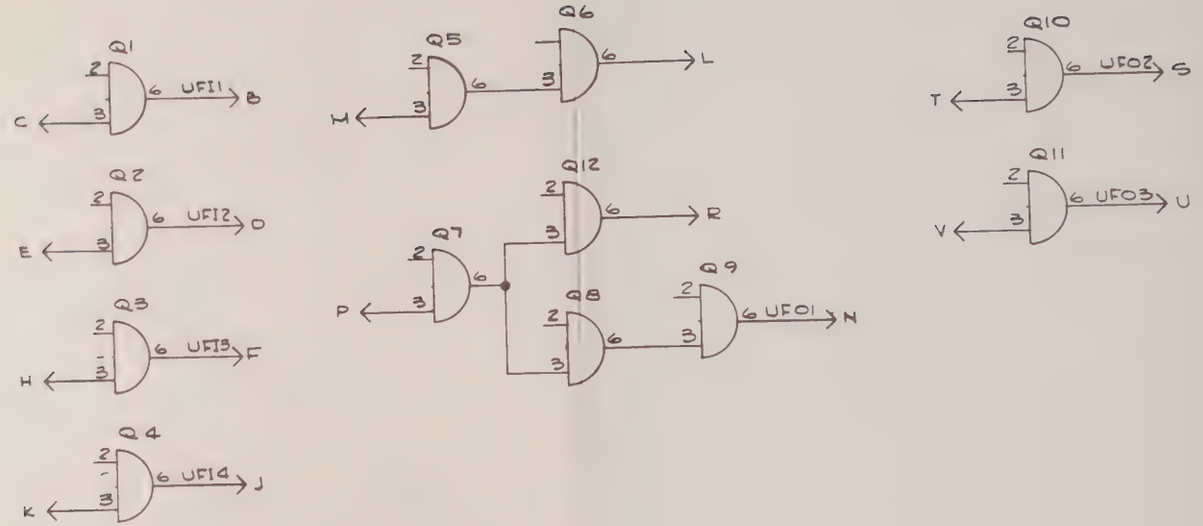
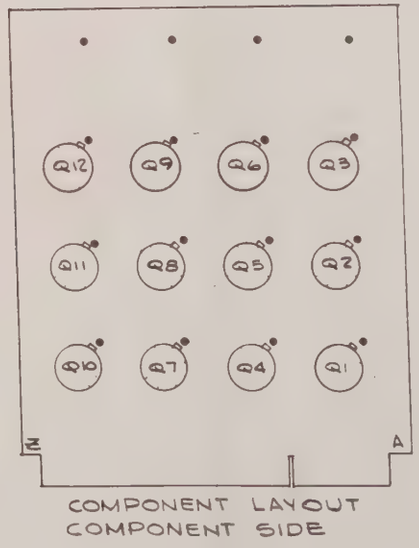


Figure 5-19 Logic Board Type SD (single-shot) Schematic



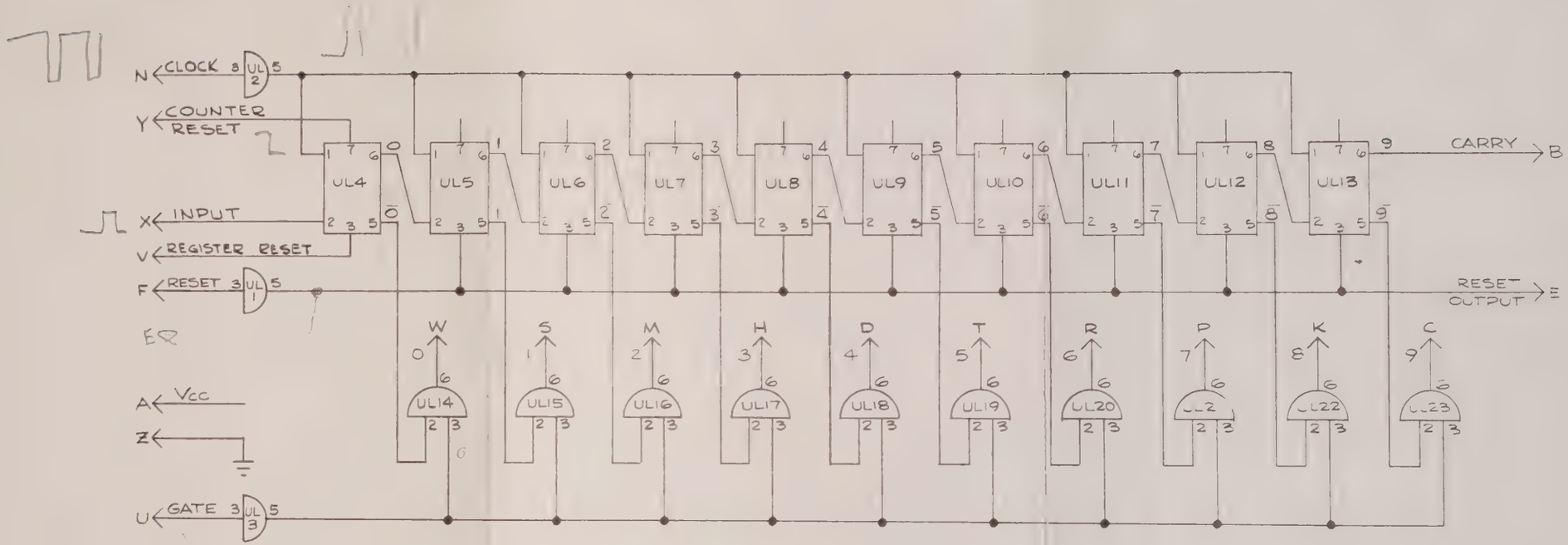
[COMPL. SIDE]

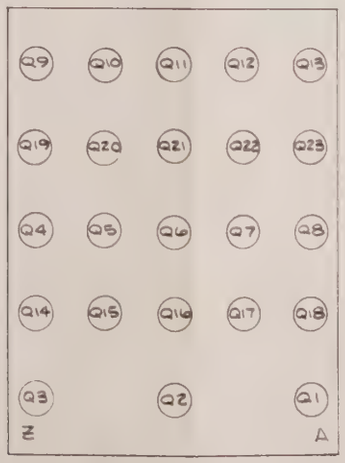
PIN	FUNCTION
A	VCC
B	OUT
C	IN
D	OUT
E	IN
F	OUT
H	IN
J	OUT
K	IN
L	OUT
M	IN
N	OUT
P	IN
R	OUT
S	OUT
T	IN
U	OUT
V	IN
W	
X	
Y	
Z	COM



COMPONENT LAYOUT
COMPONENT SIDE

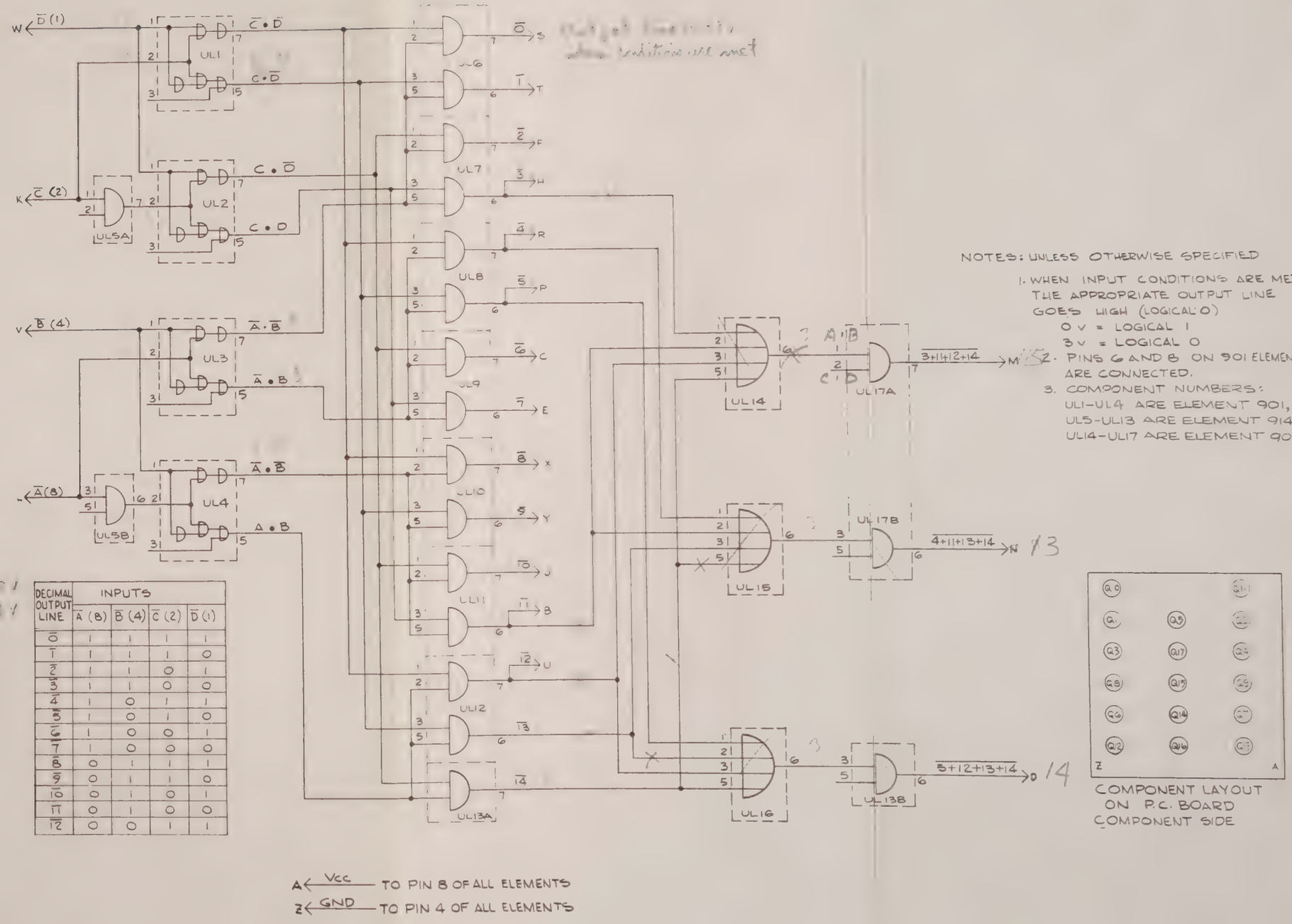
Figure 5-20 Driver Board Type FTD (Functional Test Driver) Schematic





COMPONENT LAYOUT
COMPONENT SIDE

Figure 5-21 Logic Board Type UCR (Counter/Shift Register) Schematic



DECIMAL OUTPUT LINE	INPUTS $\overline{A}$ (8)	$\overline{B}$ (4)	$\overline{C}$ (2)	$\overline{D}$ (1)
$\overline{0}$	1	1	1	1
$\overline{1}$	1	1	1	0
$\overline{2}$	1	1	0	1
$\overline{3}$	1	1	0	0
$\overline{4}$	1	0	1	1
$\overline{5}$	1	0	1	0
$\overline{6}$	1	0	0	1
$\overline{7}$	1	0	0	0
$\overline{8}$	0	1	1	1
$\overline{9}$	0	1	1	0
$\overline{10}$	0	1	0	1
$\overline{11}$	0	1	0	0
$\overline{12}$	0	0	1	1

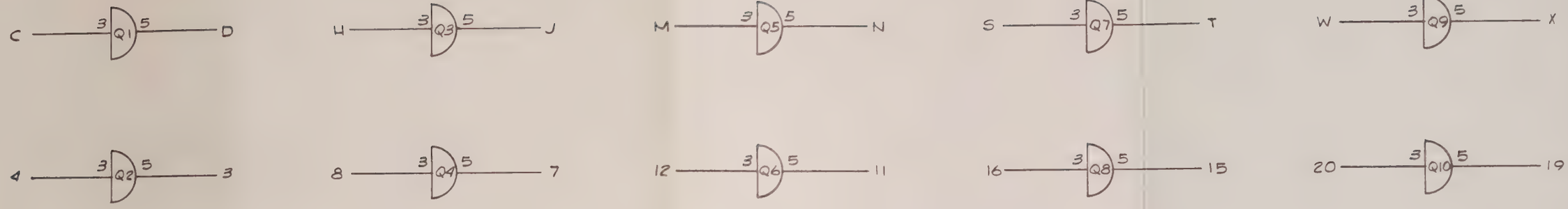
NOTES: UNLESS OTHERWISE SPECIFIED

1. WHEN INPUT CONDITIONS ARE MET, THE APPROPRIATE OUTPUT LINE GOES HIGH (LOGICAL 0)
   0 V = LOGICAL 1
   3 V = LOGICAL 0
2. PINS 6 AND 8 ON 901 ELEMENTS ARE CONNECTED.
3. COMPONENT NUMBERS:
   UL1-UL4 ARE ELEMENT 901,
   UL5-UL13 ARE ELEMENT 914,
   UL14-UL17 ARE ELEMENT 907.

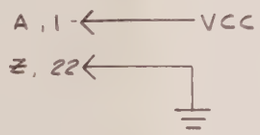
COMPONENT LAYOUT ON P.C. BOARD COMPONENT SIDE

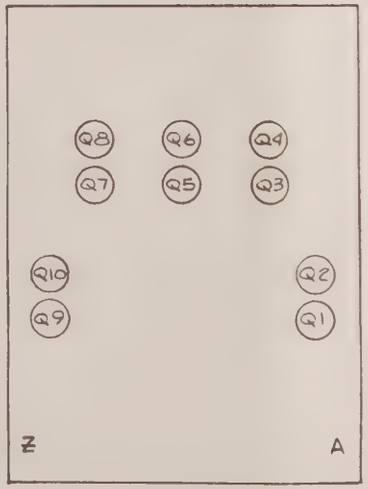
A ← Vcc — TO PIN 8 OF ALL ELEMENTS
Z ← GND — TO PIN 4 OF ALL ELEMENTS

Figure 5-22 Logic Board Type UDD (Binary to Decimal Decoder) Schematic

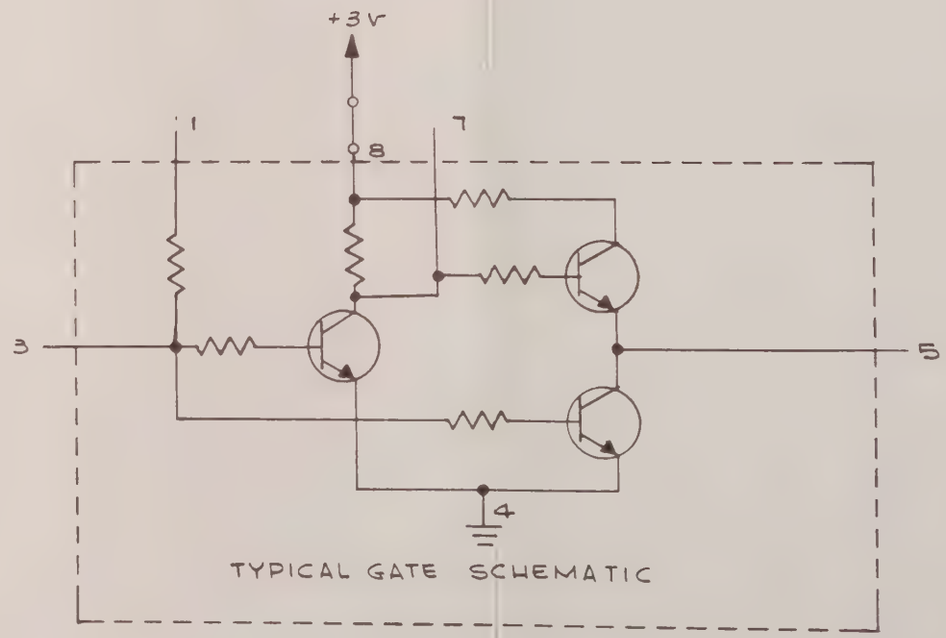


COMP. SIDE		REV SIDE	
PIN	FUNCTION	PIN	FUNCTION
A	VCC	1	VCC
B		2	
C	IN	3	OUT
D	OUT	4	IN
E		5	
F	IN	6	OUT
H		7	
J	OUT	8	IN
K		9	
L	IN	10	OUT
M		11	
N	OUT	12	IN
P		13	
R	IN	14	OUT
S		15	
T	OUT	16	IN
U		17	
V	IN	18	OUT
W		19	
X	OUT	20	IN
Y		21	
Z	COM.	22	COM.



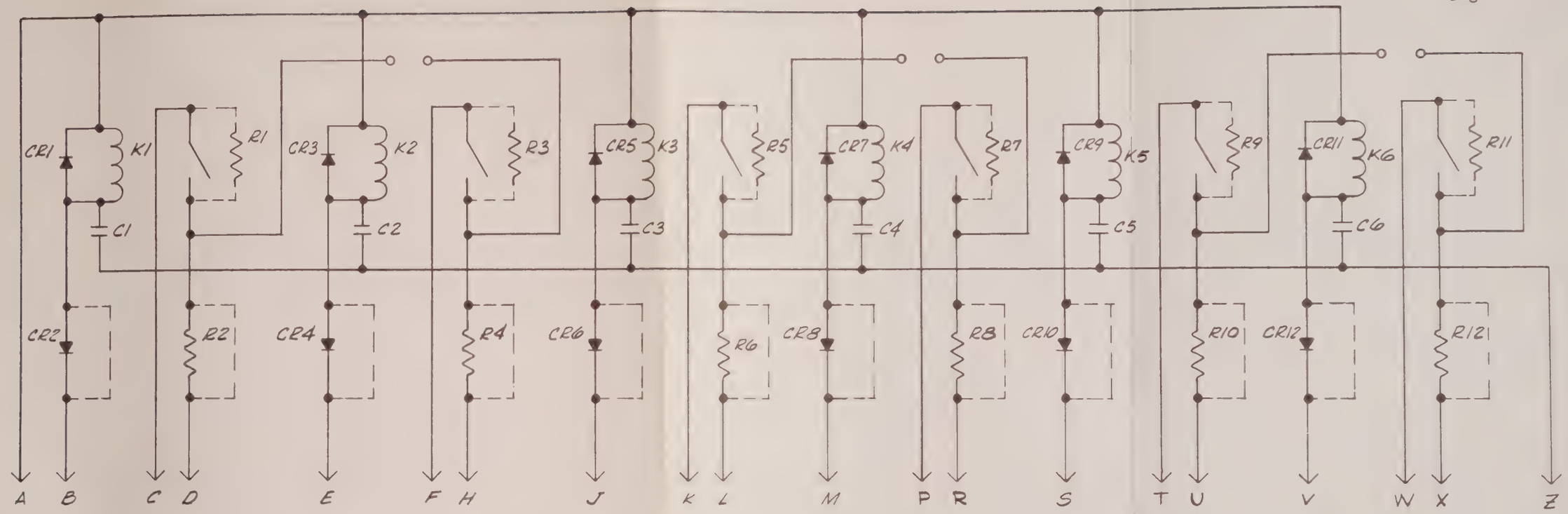


COMPONENT LAYOUT
COMPONENT SIDE



TYPICAL GATE SCHEMATIC

Figure 5-24 Logic Board Type UB (Micrologic Buffer) Schematic



NOTES:

1. ALL CAPACITORS ARE .05 UF, 50V.
2. ALL DIODES ARE FD100
3. RRA BOARD USES CR2-CR12, RRB DOES NOT. CR1-CR11 USED ON RRA & RRB. A JUMPER WIRE IS USED IN PLACE OF CR2-CR12 ON RRA.
4. R1-R11 ARE OPTIONAL. (PARALLEL TO RELAY) R2-R12 ARE OPTIONAL. (SERIES TO RELAY) A THRU PIN IS REQ'D FOR OPERATION IF R2-R12 ARE NOT USED.

Figure 5-26 Relay Board Type RRA And RRB Schematic

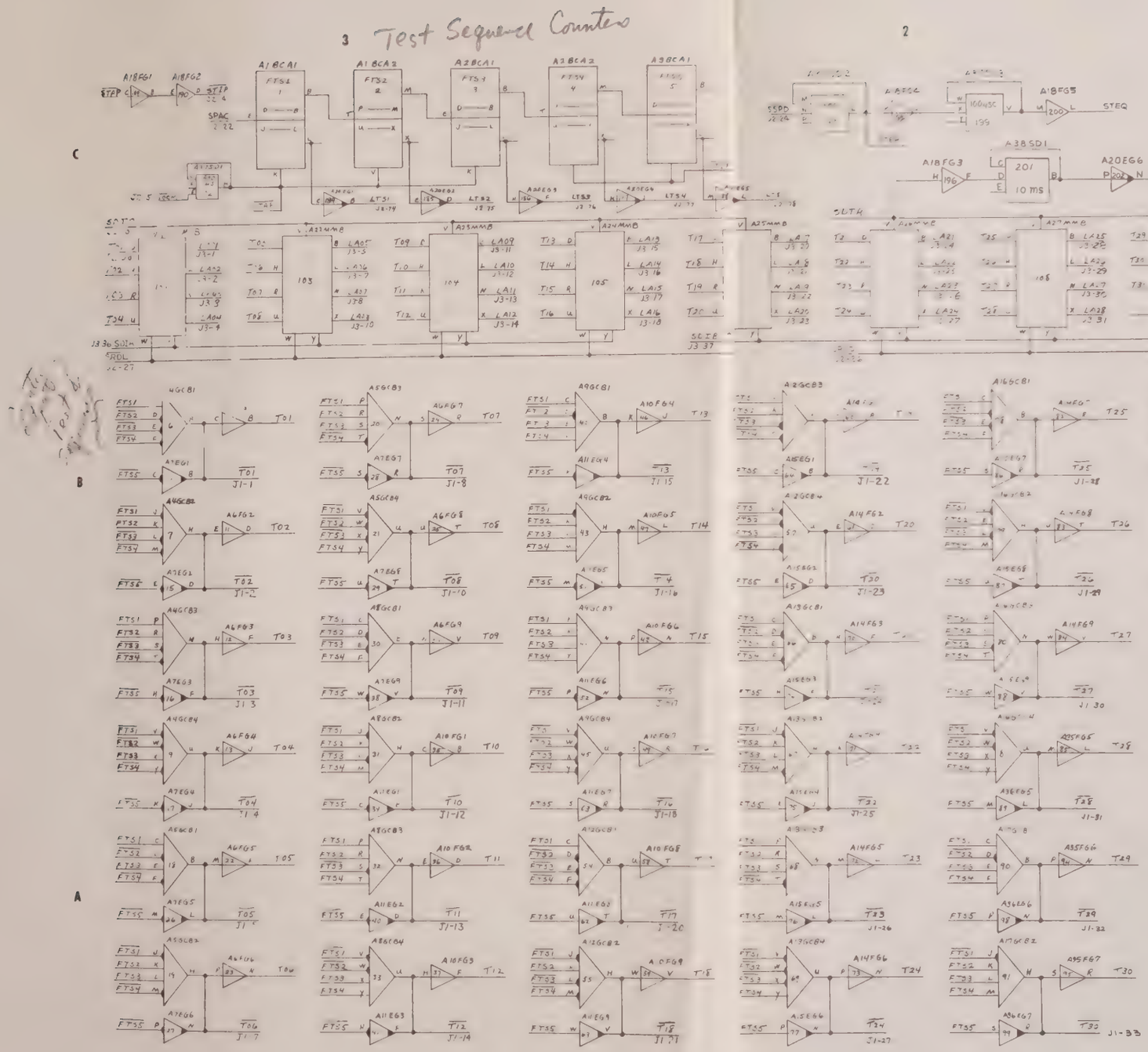


Figure 5-27 Logic II Module A32 Schematic

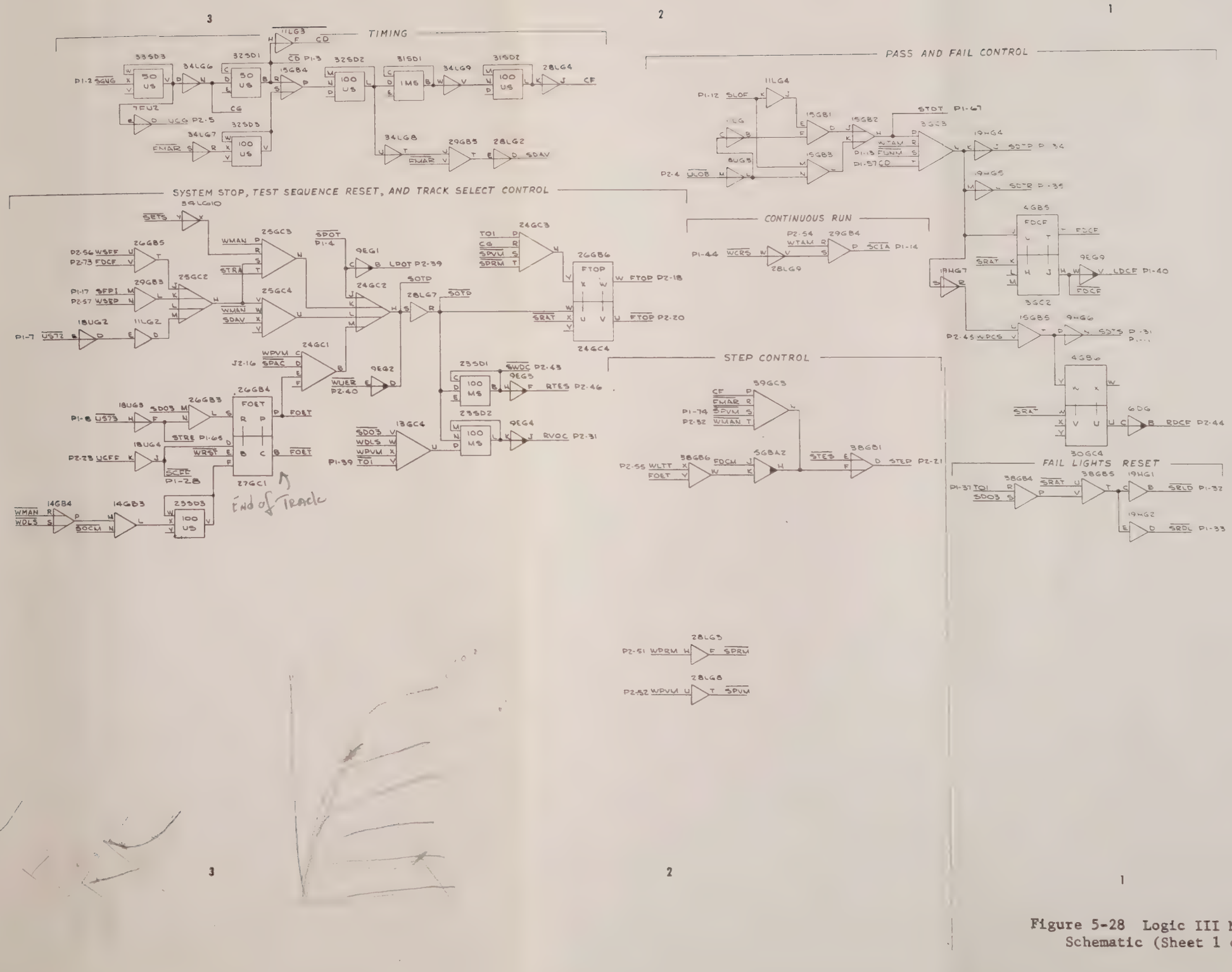


Figure 5-28 Logic III Module A33 Schematic (Sheet 1 of 2)

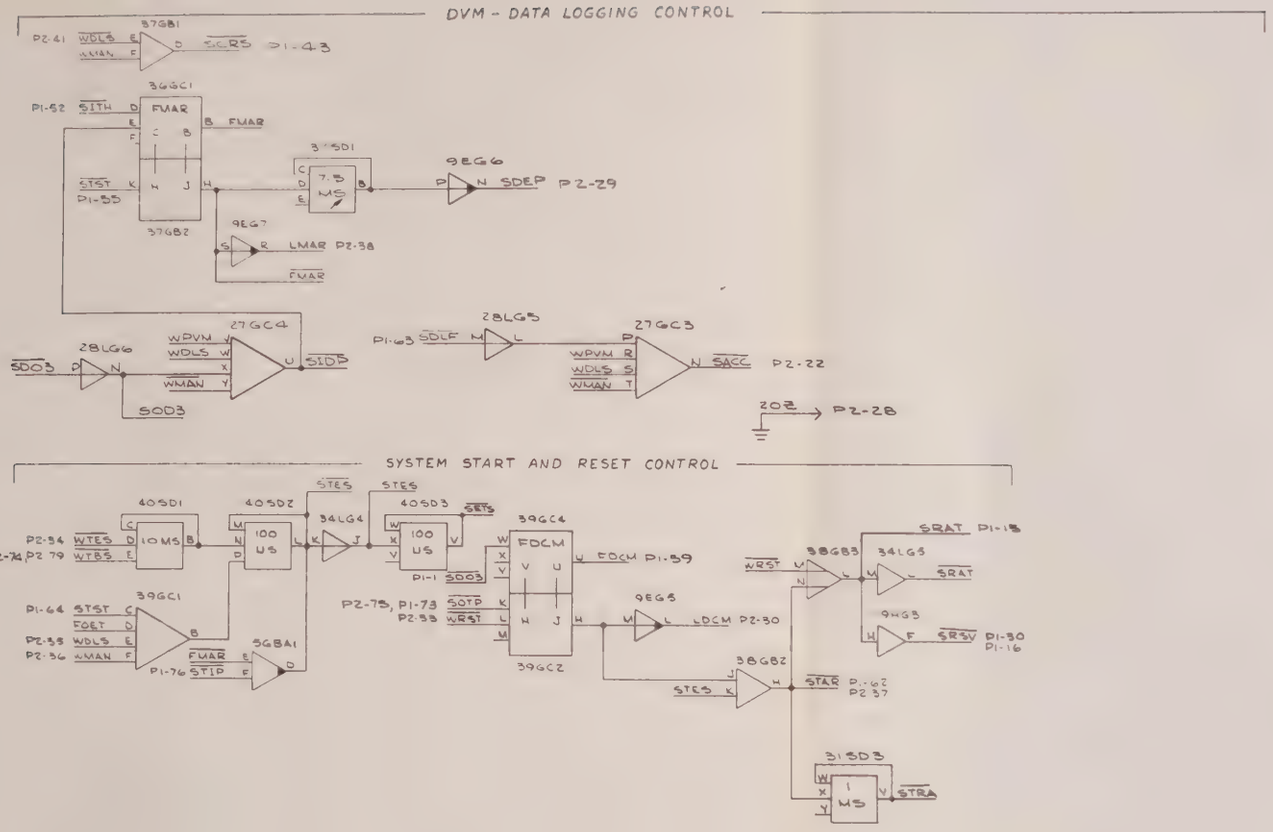


Figure 5-28 Logic III Module A33
Schematic (Sheet 2 of 2)

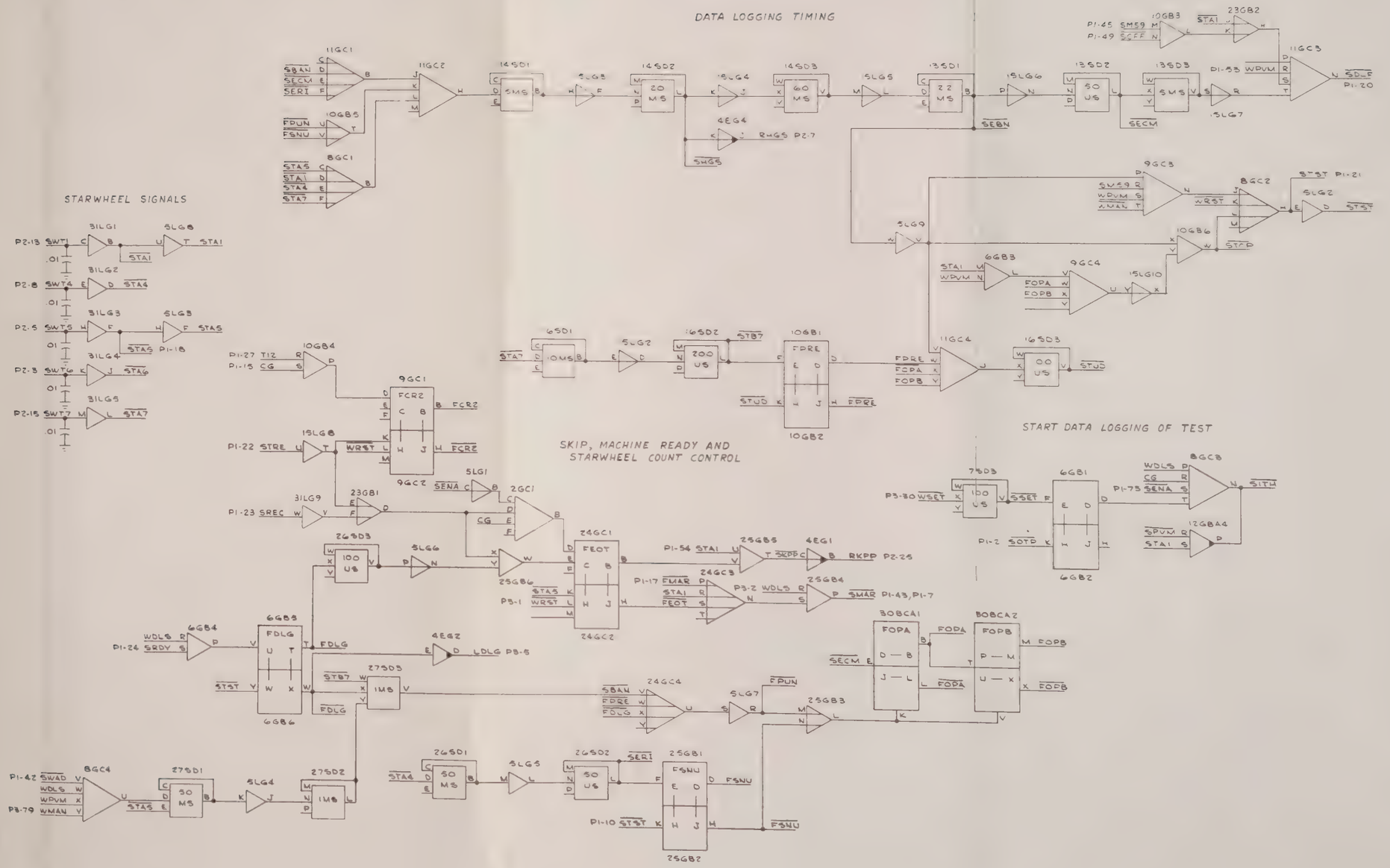


Figure 5-29 Logic IV Module A52 Schematic (Sheet 1 of 2)

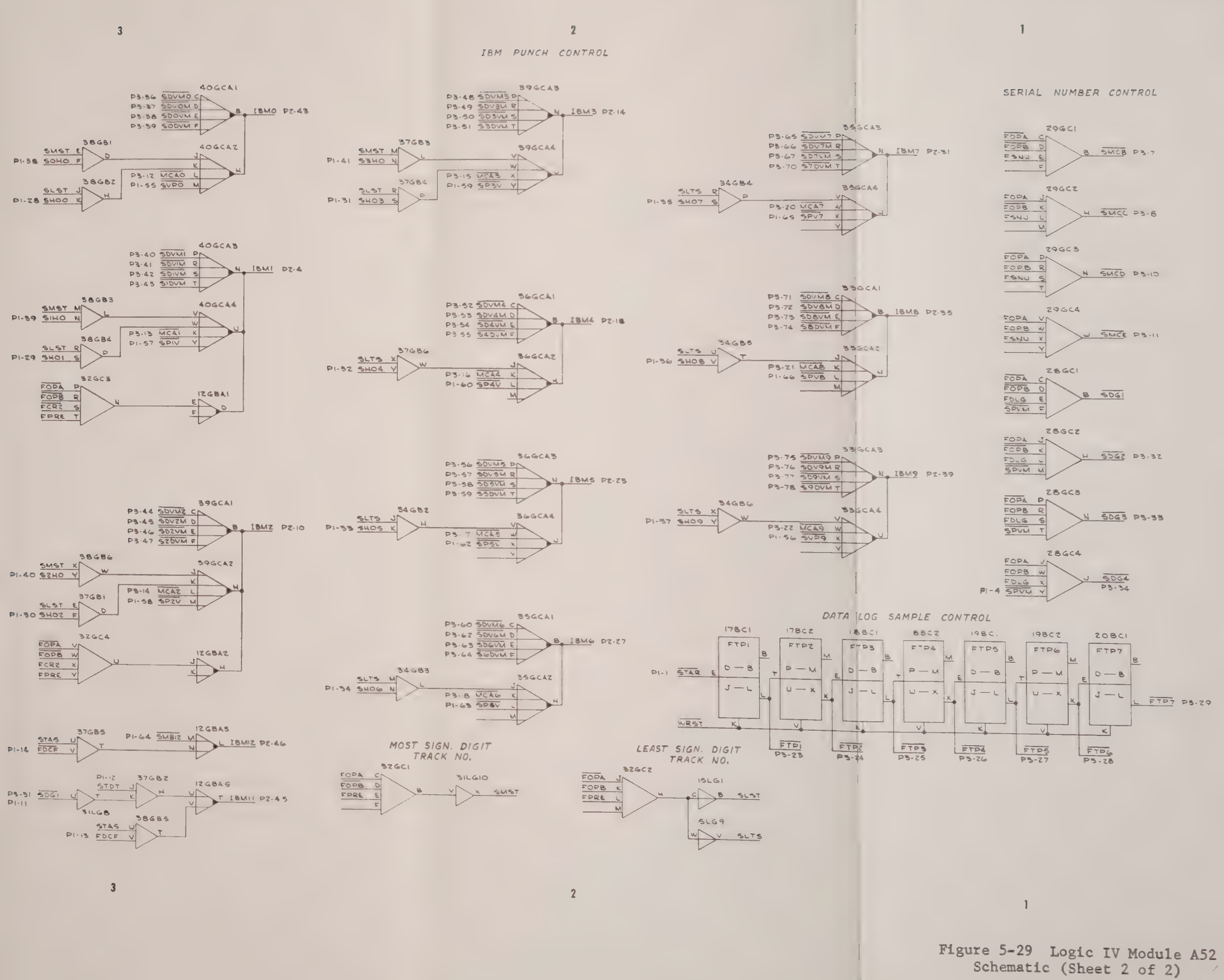
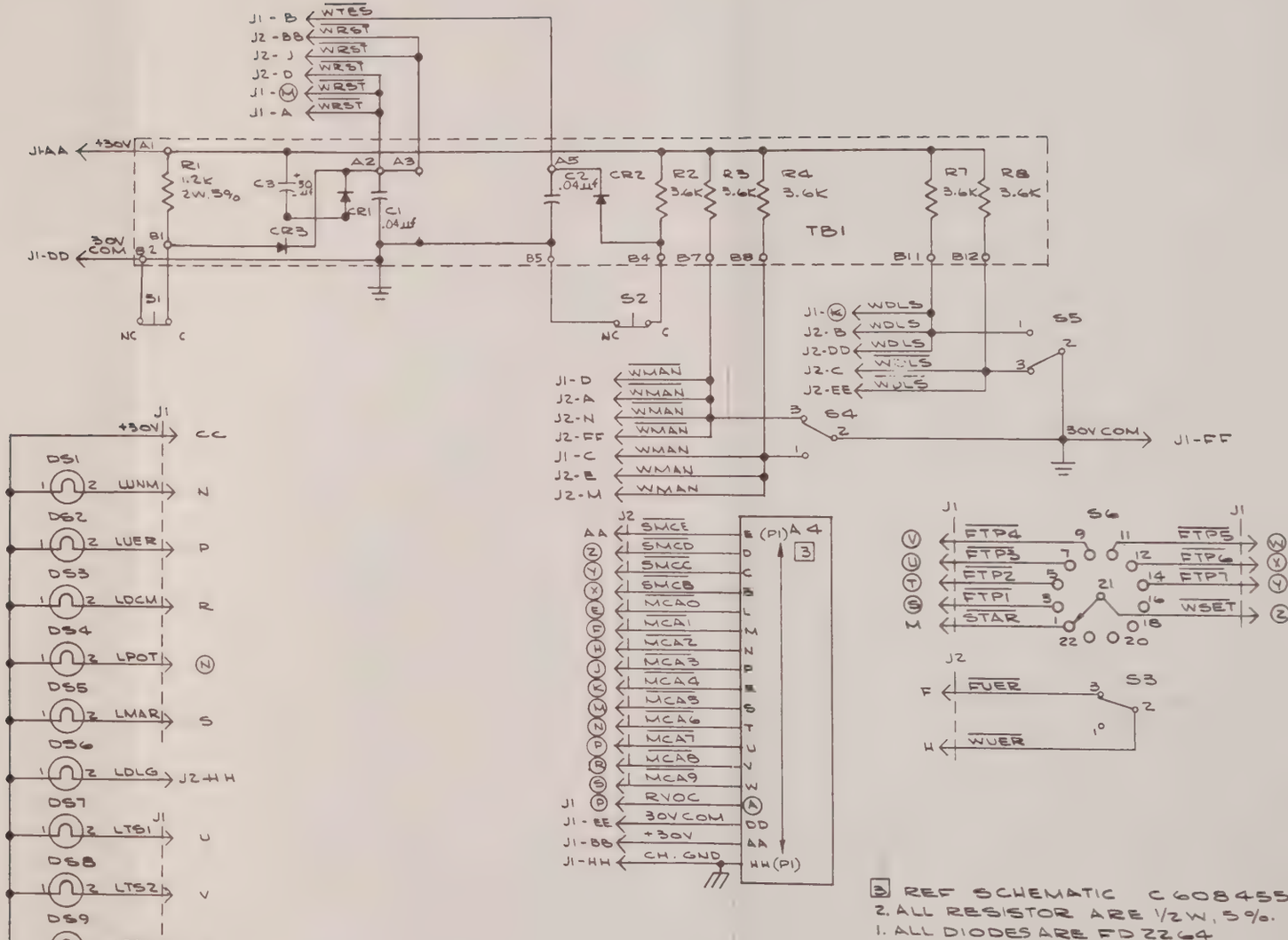


Figure 5-29 Logic IV Module A52 Schematic (Sheet 2 of 2)



3 REF SCHEMATIC C608455
2. ALL RESISTOR ARE 1/2W, 5%.
1. ALL DIODES ARE FD 2264

Figure 5-30 Control Chassis A60
Schematic

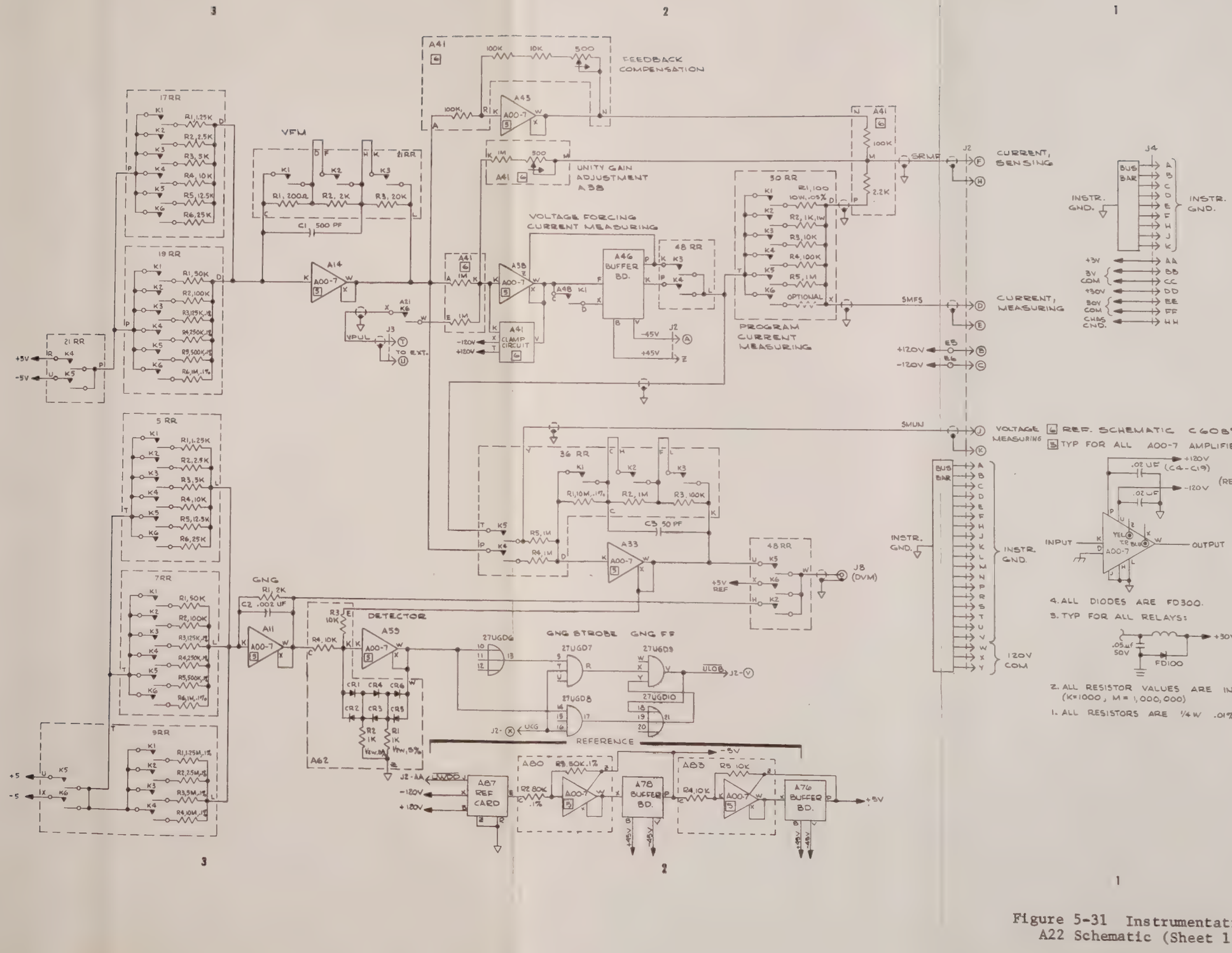


Figure 5-31 Instrumentation Chassis A22 Schematic (Sheet 1 of 2)

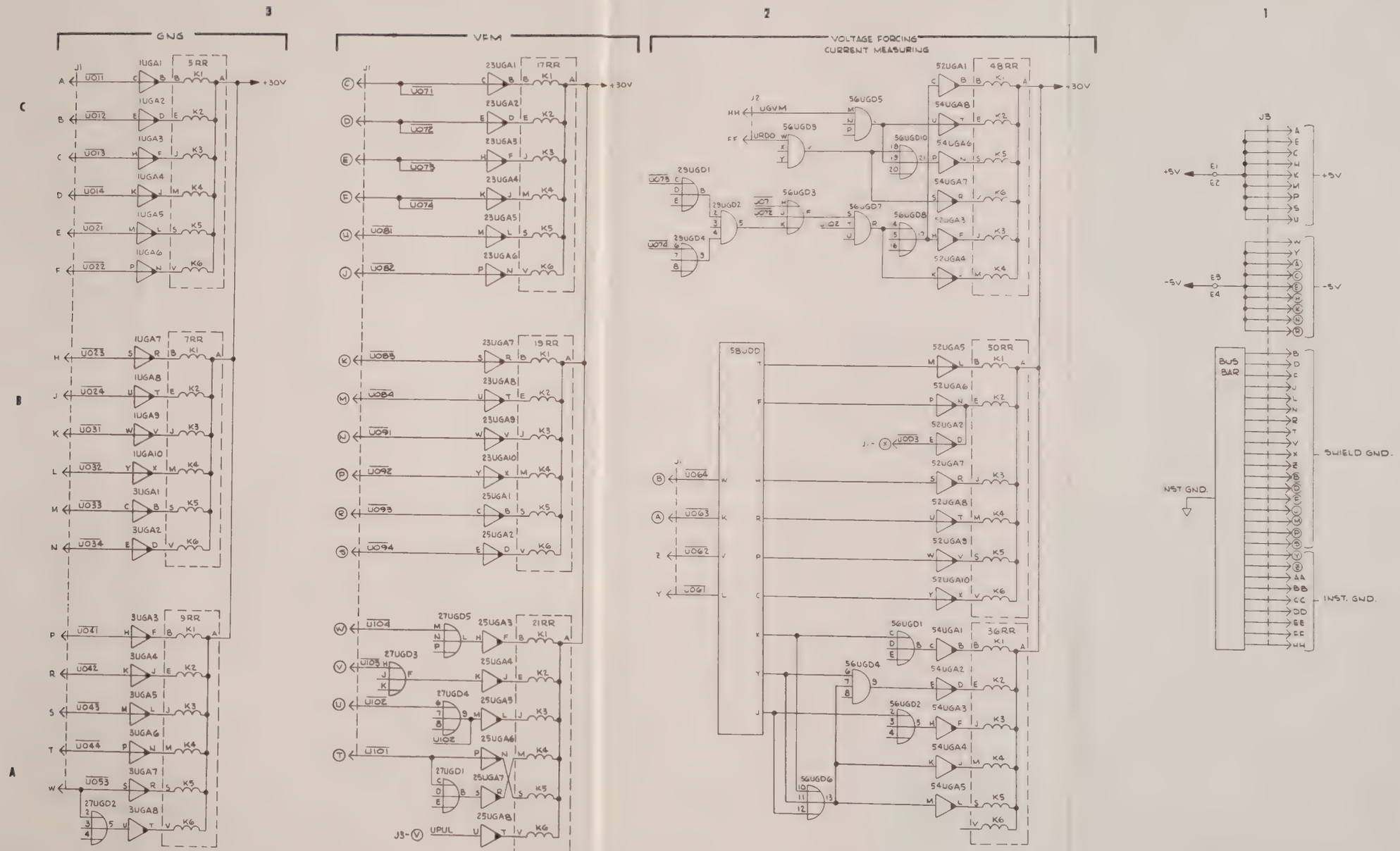


Figure 5-31 Instrumentation Chassis A22 Schematic (Sheet 2 of 2)

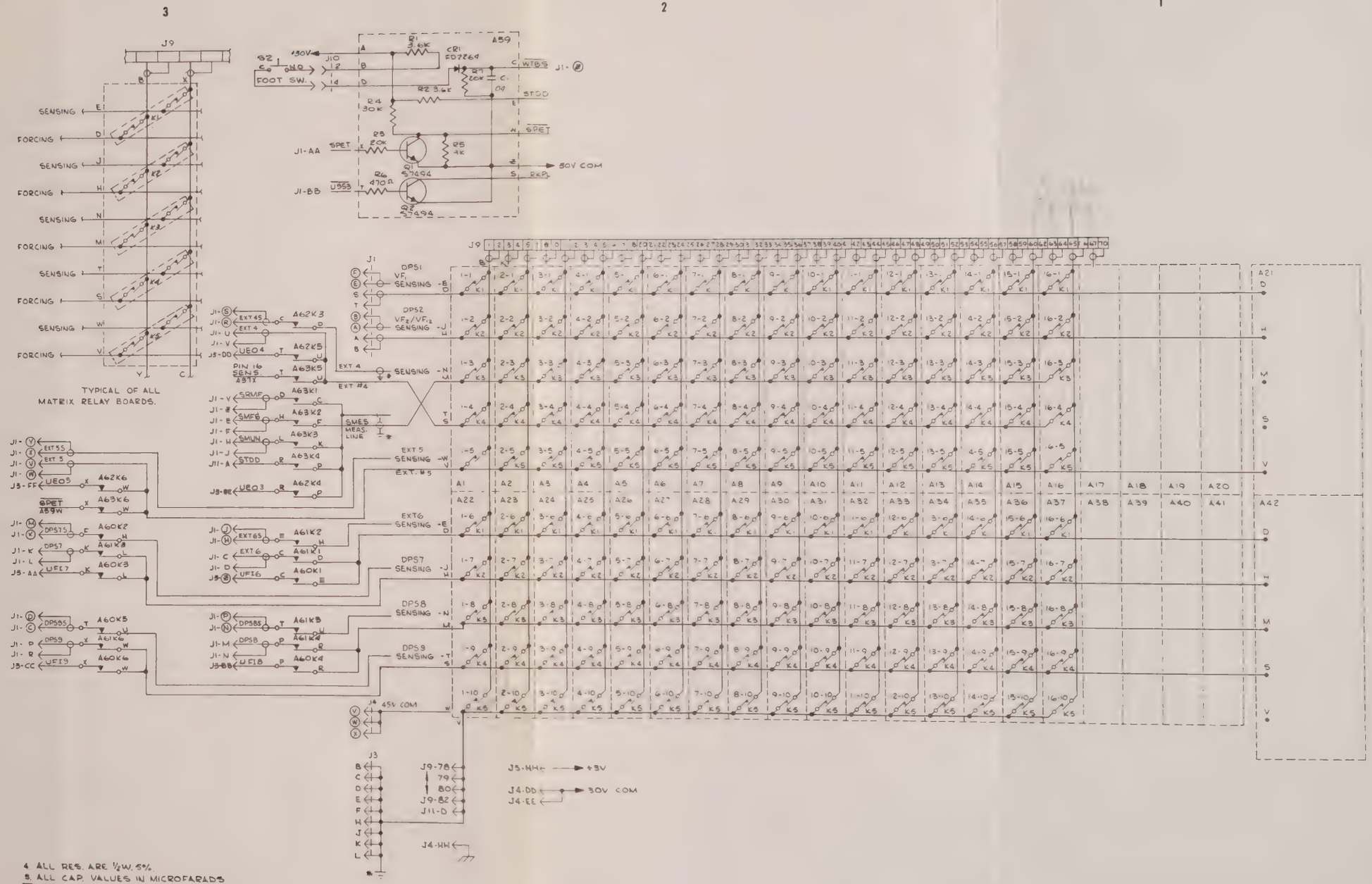


Figure 5-32 Test Head, Remote Sensing
A26 Schematic (Sheet 1 of 2)

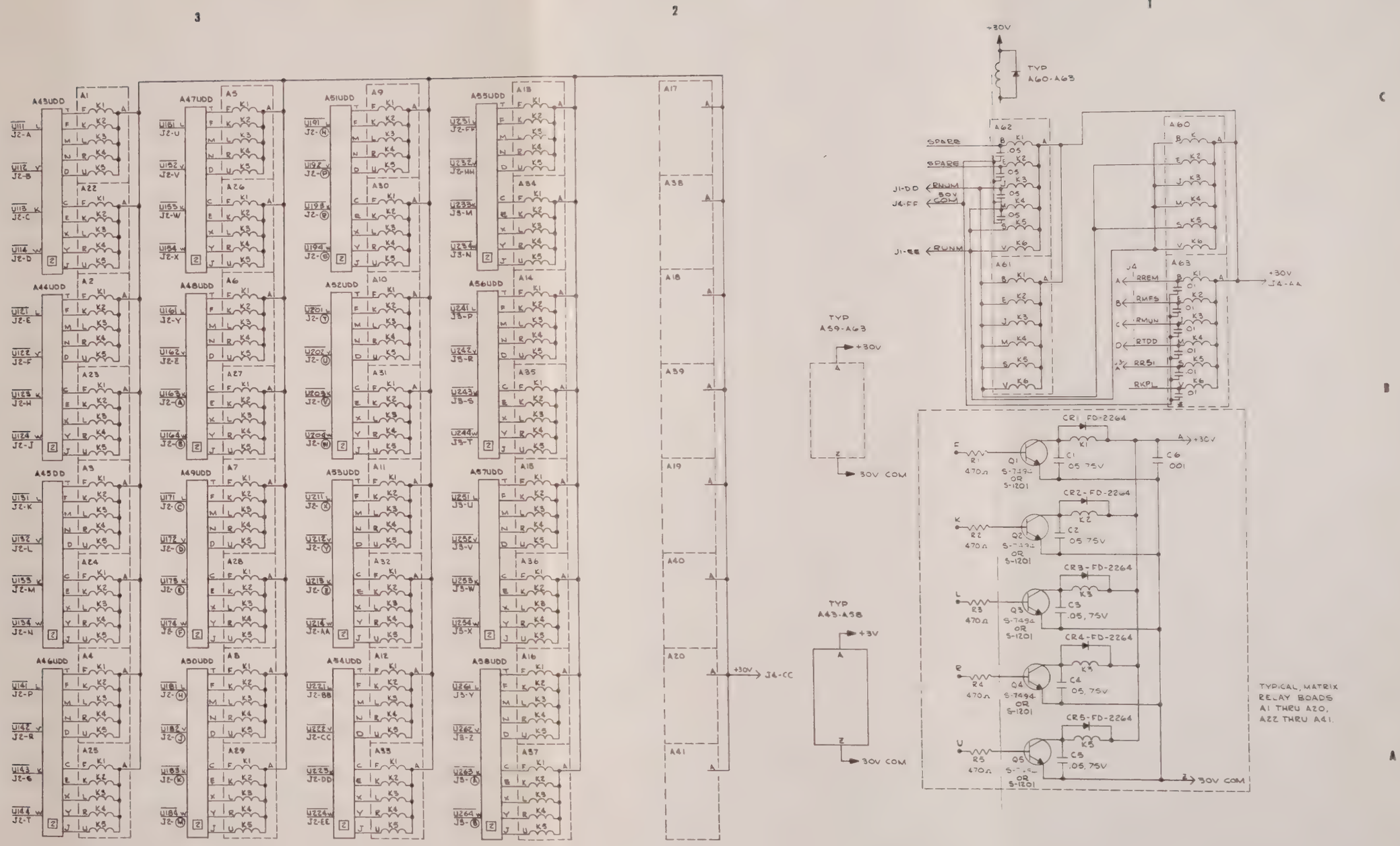
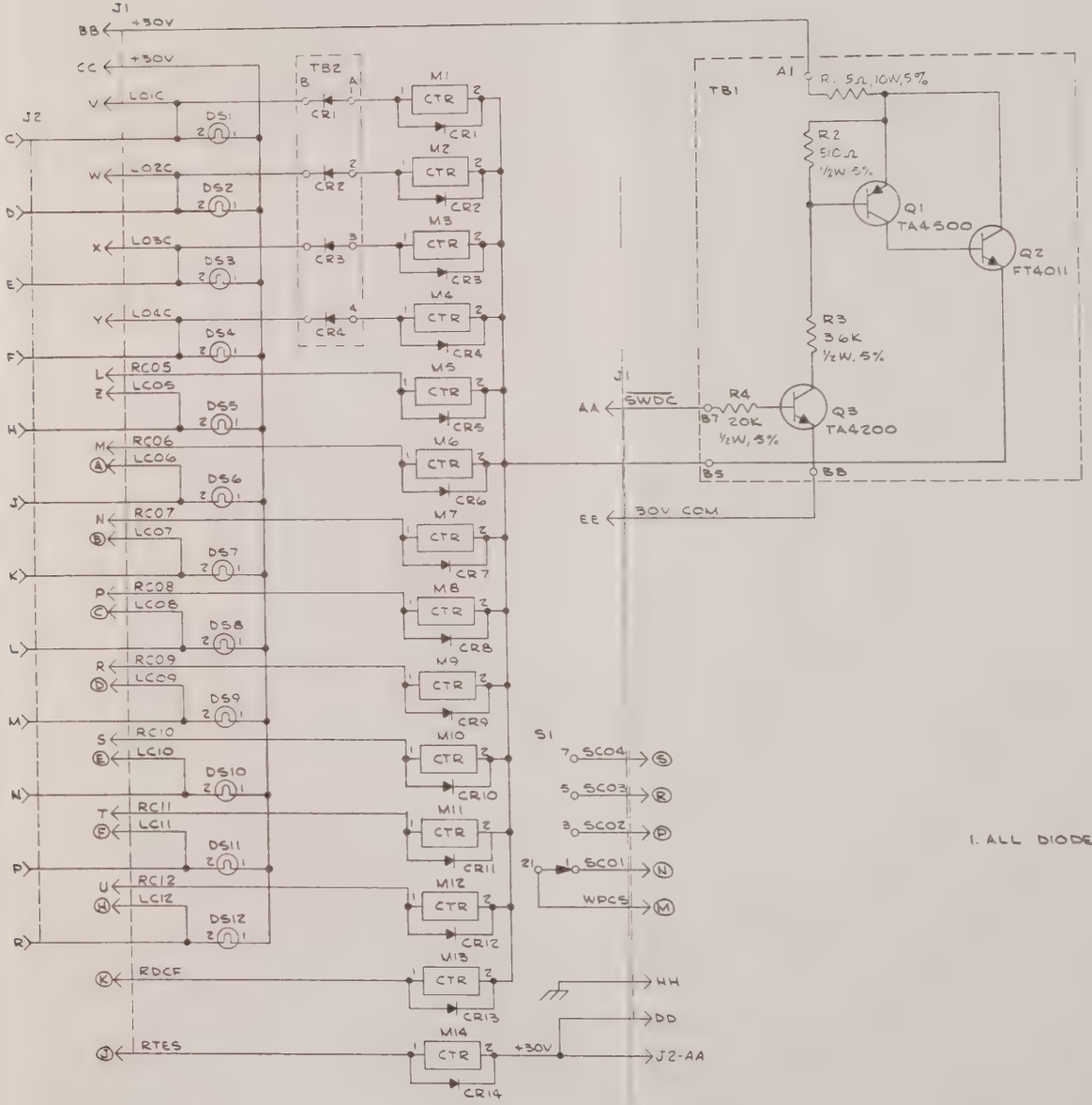


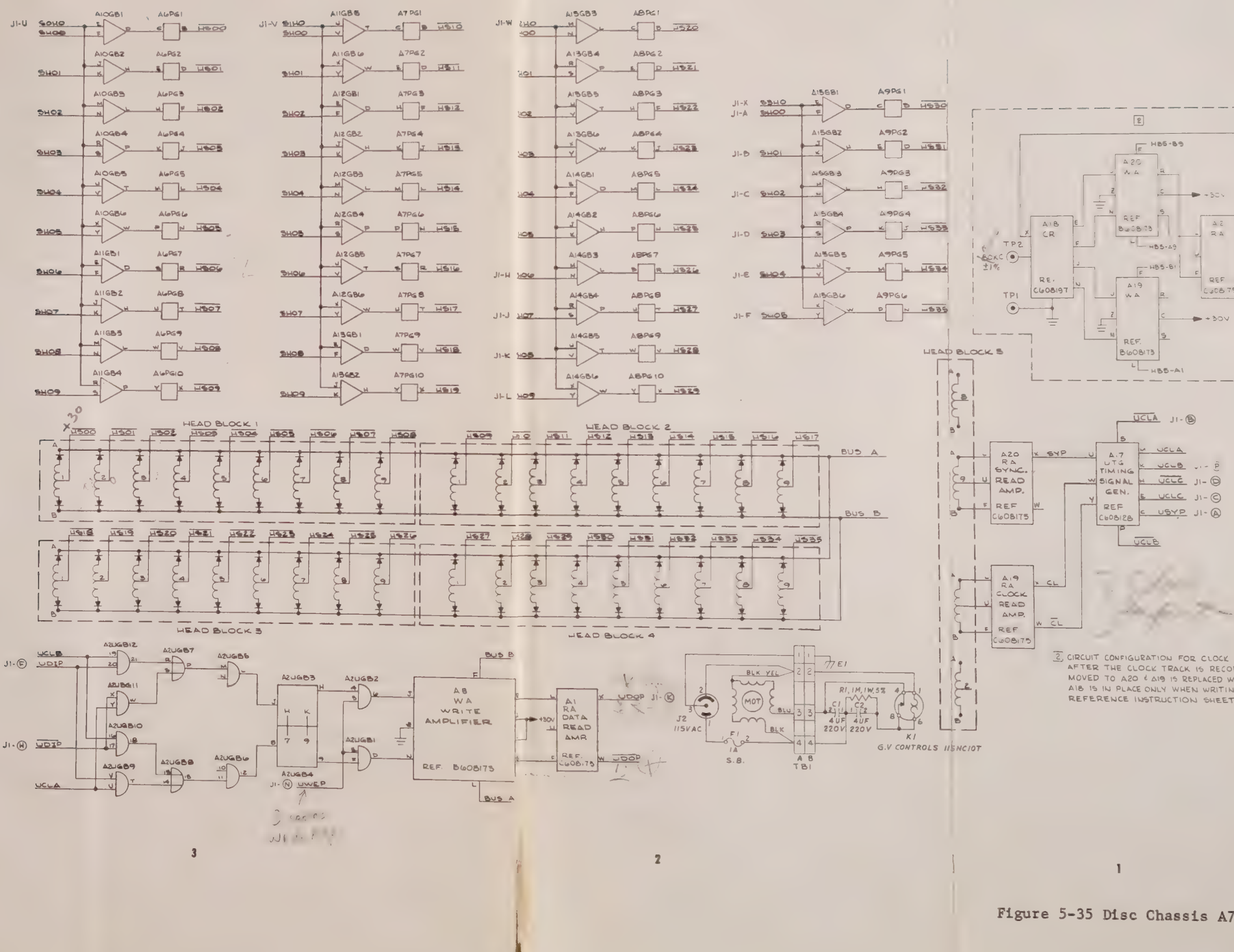
Figure 5-32 Test Head, Remote Sensing
A26 Schematic (Sheet 2 of 2)



1. ALL DIODES IN2071.

Figure 5-33 Counter Panel
A39 Schematic

Figure 5-34 Lamp Panel A21 Schematic



2. CIRCUIT CONFIGURATION FOR CLOCK RECORDING AFTER THE CLOCK TRACK IS RECORDED A21 IS MOVED TO A20 & A19 IS REPLACED WITH A READ AMPL. A18 IS IN PLACE ONLY WHEN WRITING A CLOCK TRACK. REFERENCE INSTRUCTION SHEETS NO.

Figure 5-35 Disc Chassis A70 Schematic

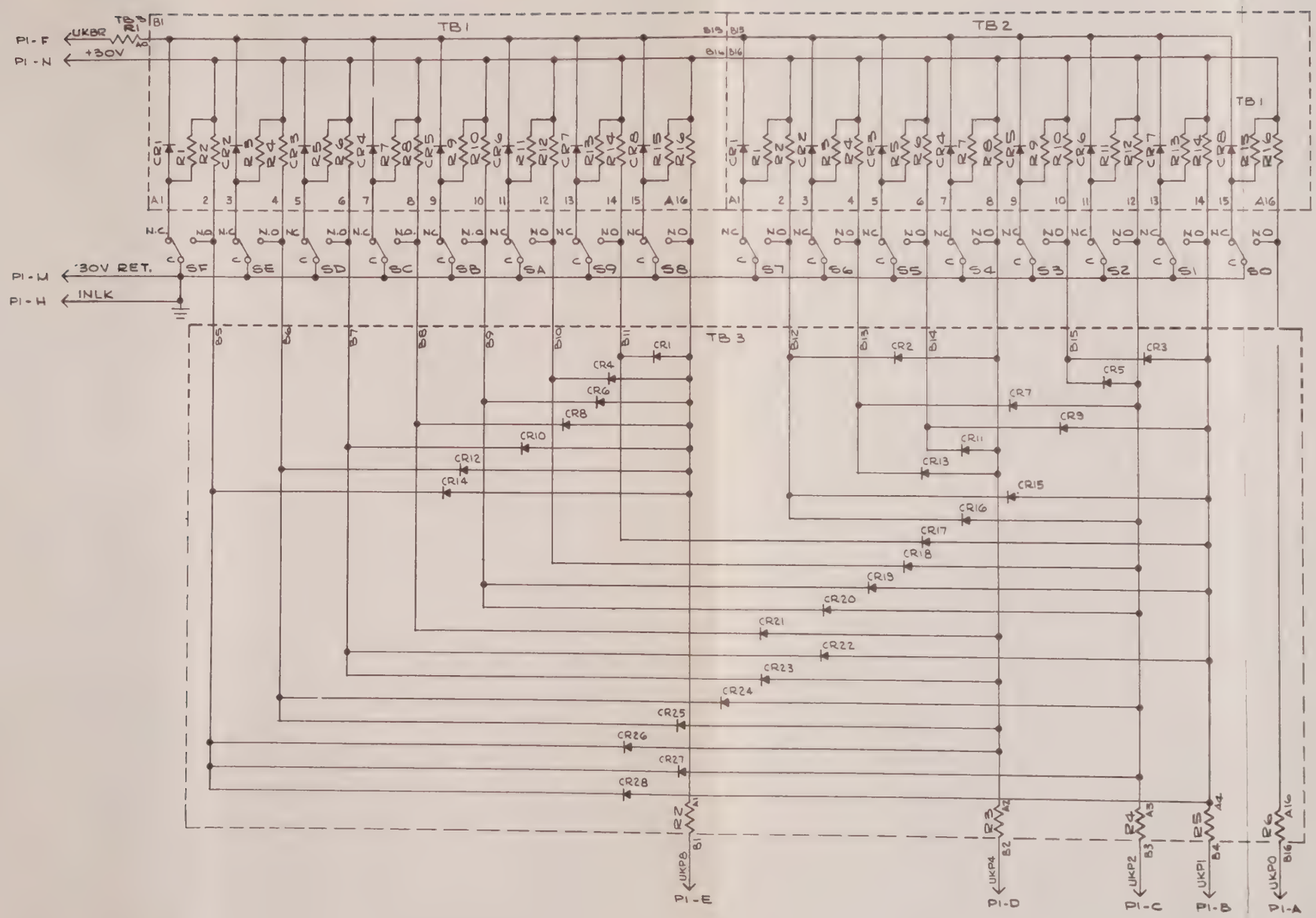


Figure 5-36 Keyboard A73 Schematic

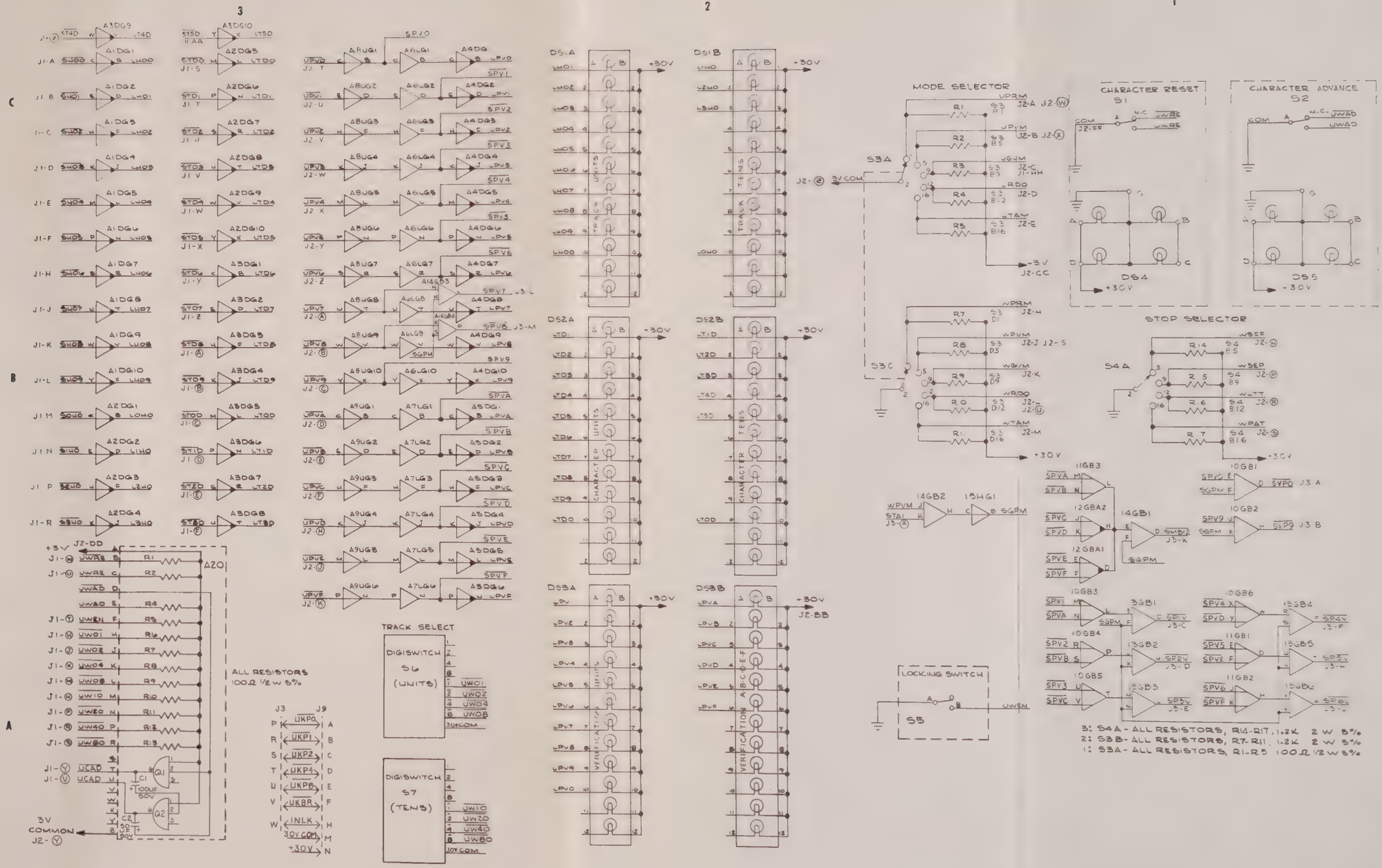


Figure 5-37 Disc Control Chassis
A71 Schematic

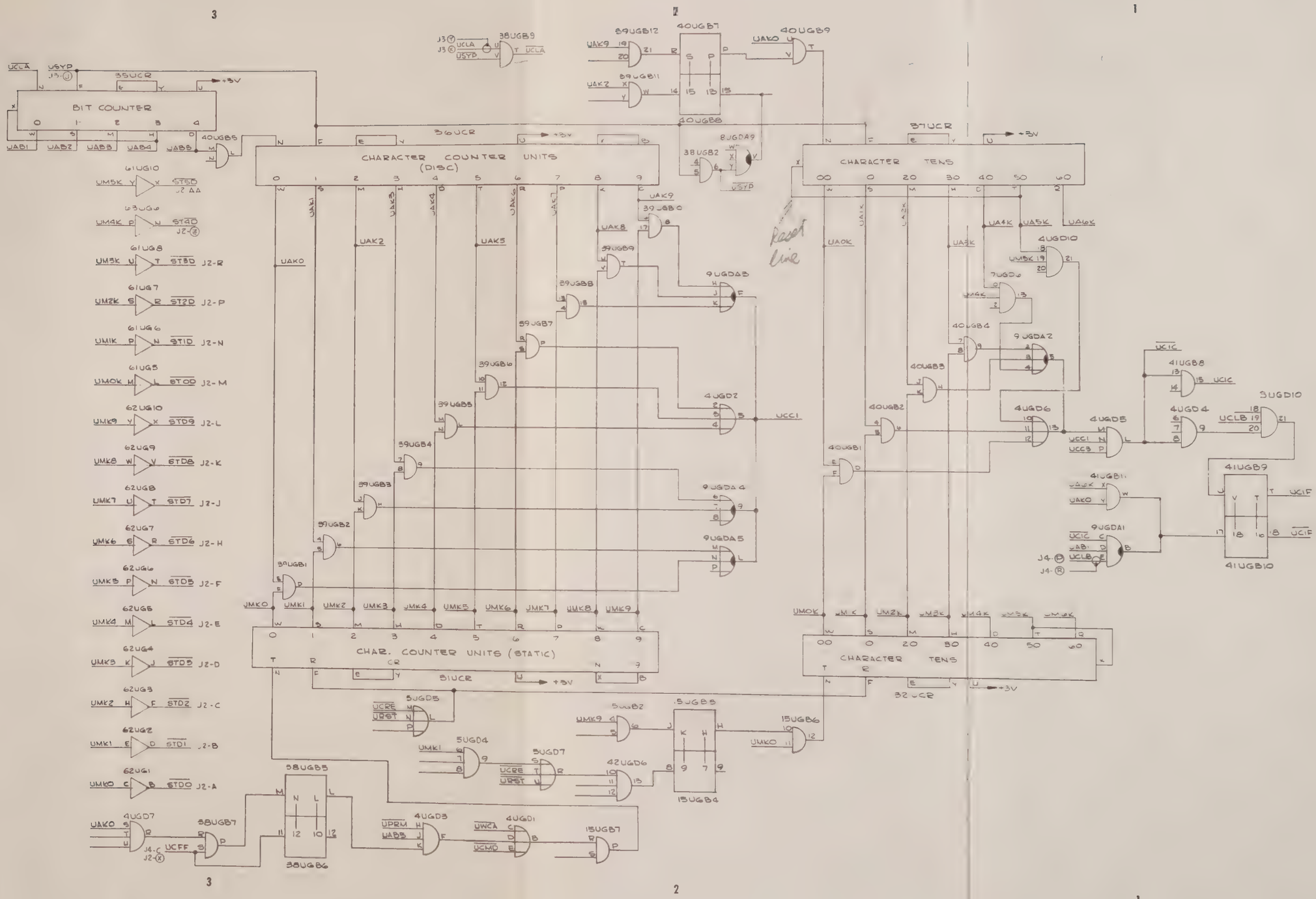


Figure 5-38 Disc Access Logic Module A69 Schematic (Sheet 1 of 5)

D608875

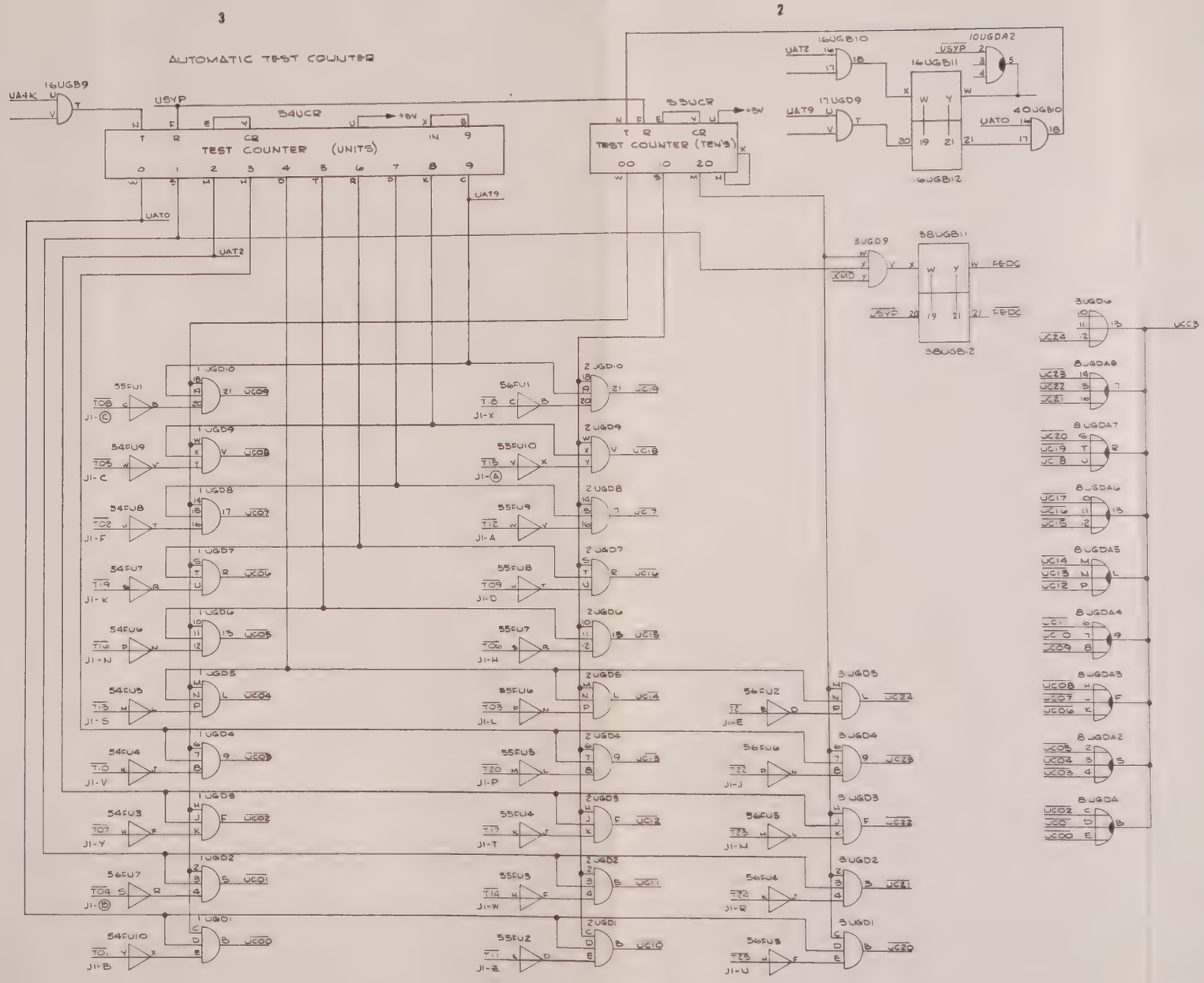
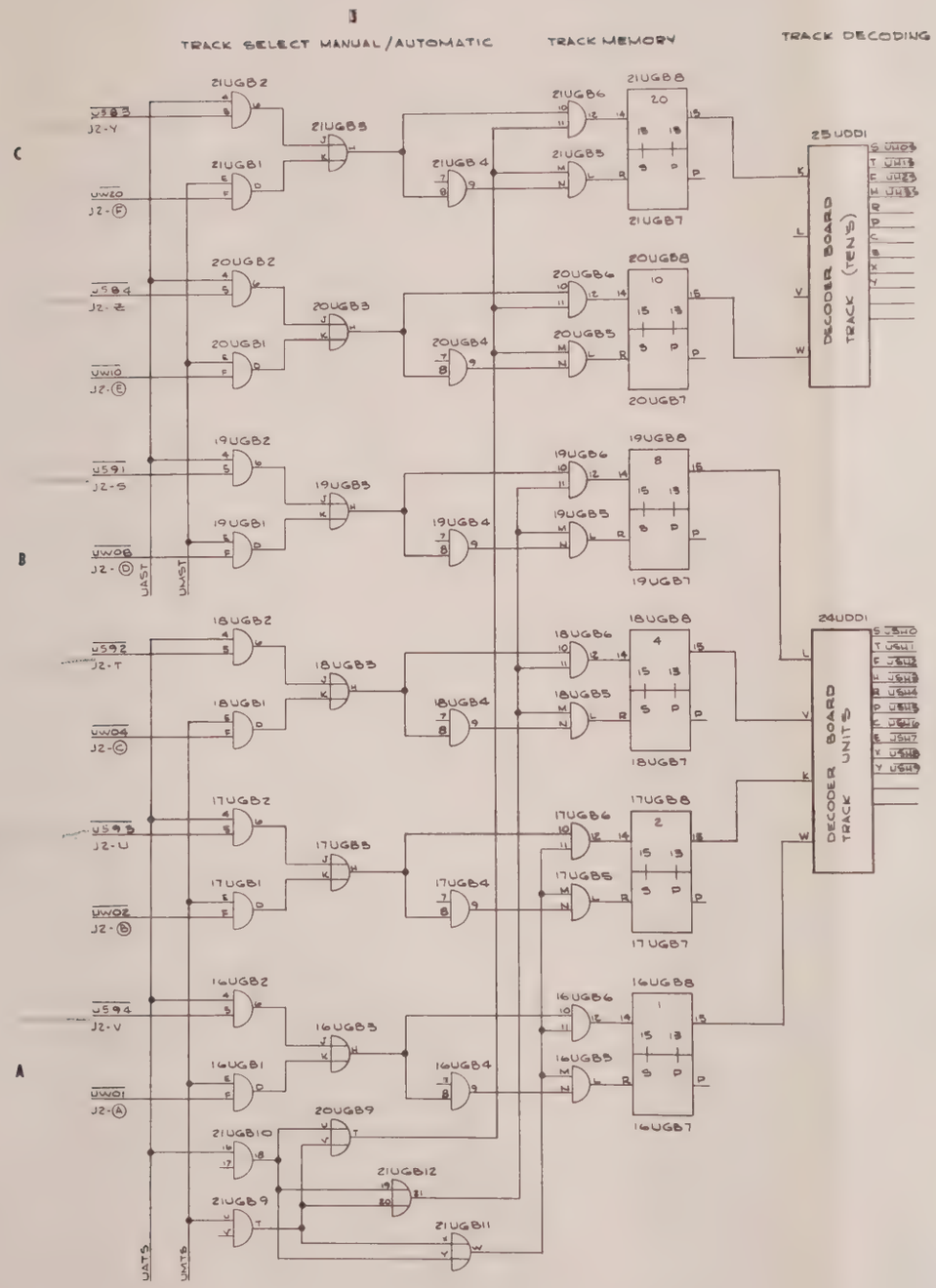
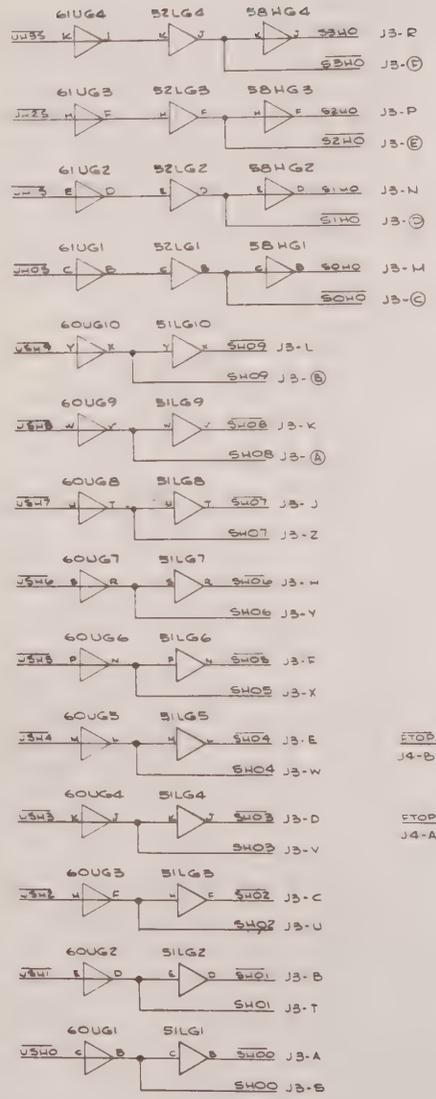


Figure 5-38 Disc Access Logic Module A69 Schematic (Sheet 2 of 5)





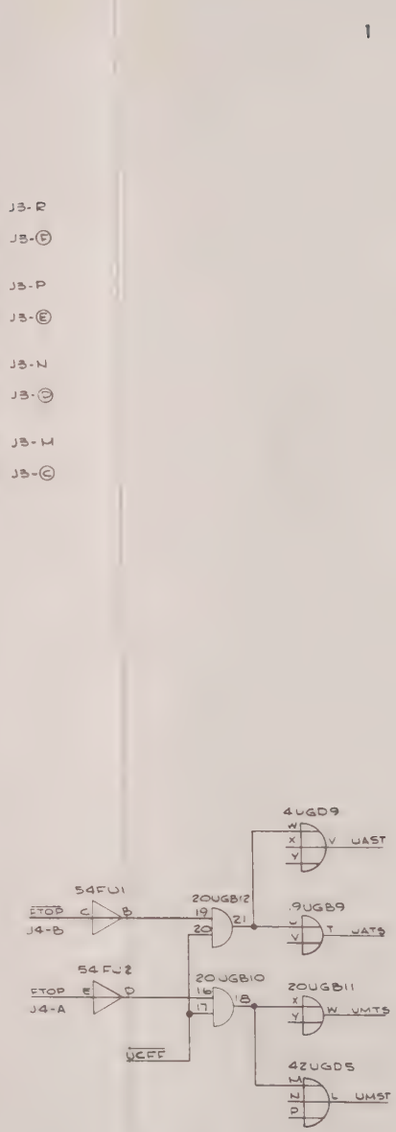


Figure 5-38 Disc Access Logic Module A69 Schematic (Sheet 3 of 5)

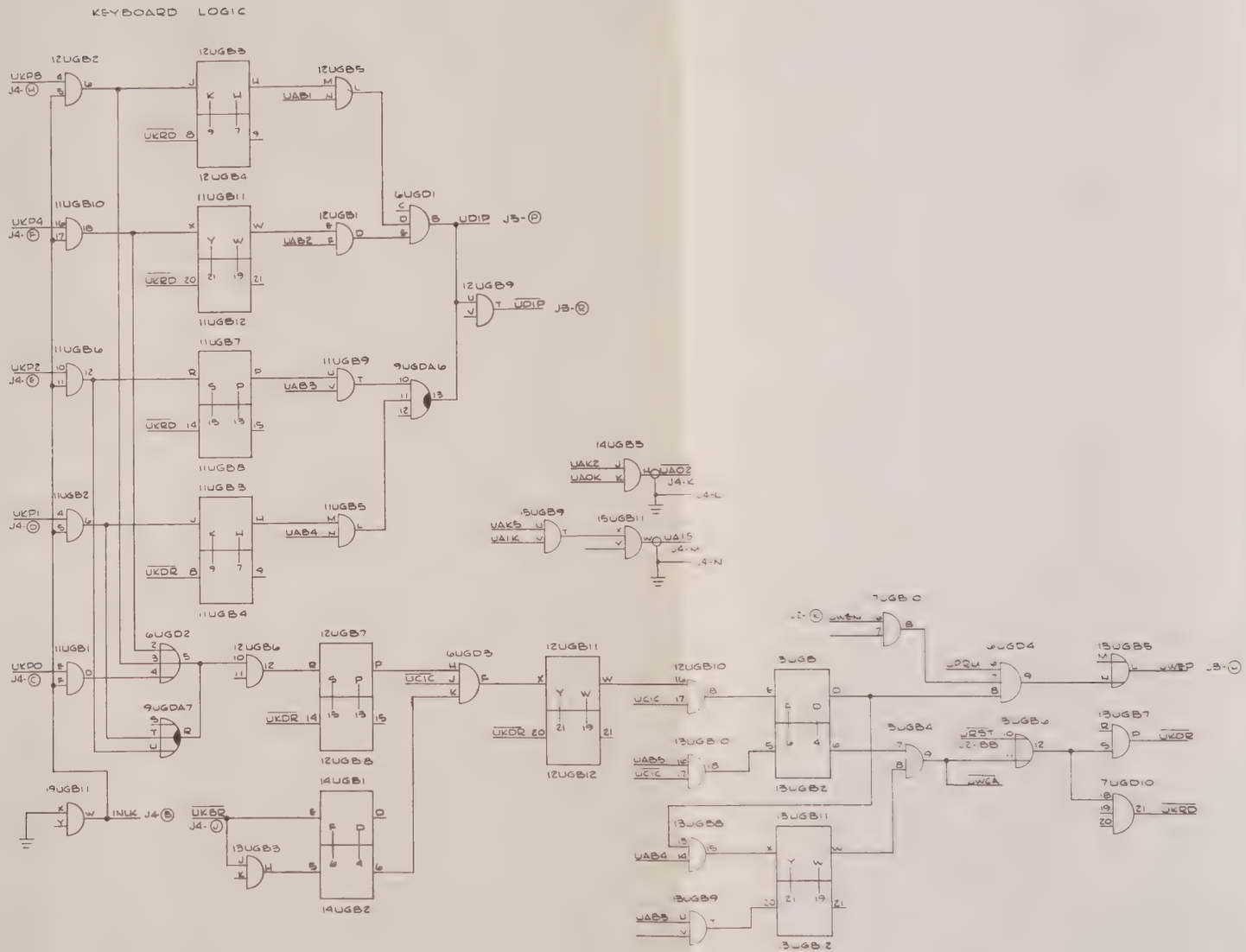


Figure 5-38 Disc Access Logic Module A69 Schematic (Sheet 4 of 5)

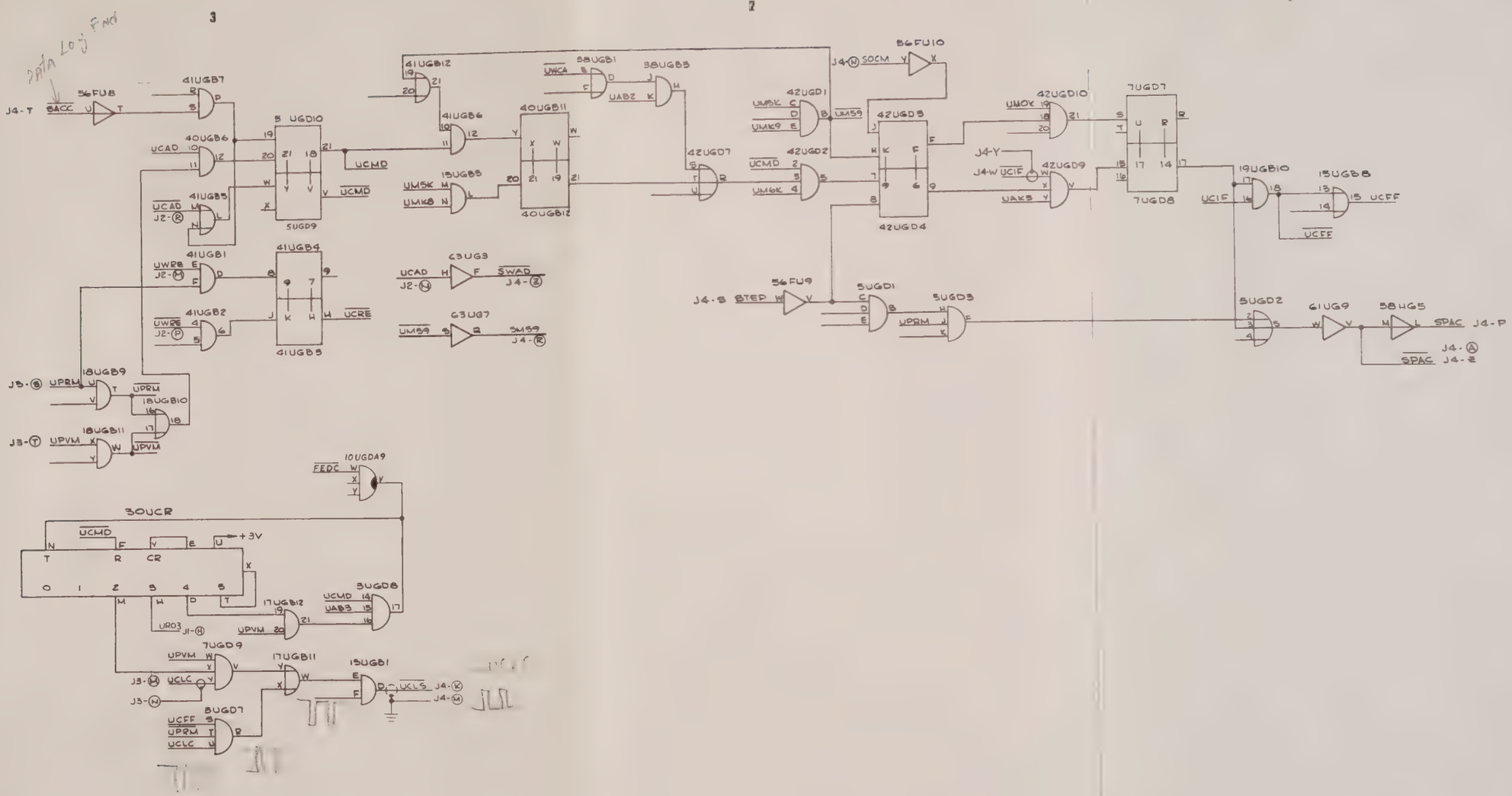


Figure 5-38 Disc Access Logic Module A69 Schematic (Sheet 5 of 5)

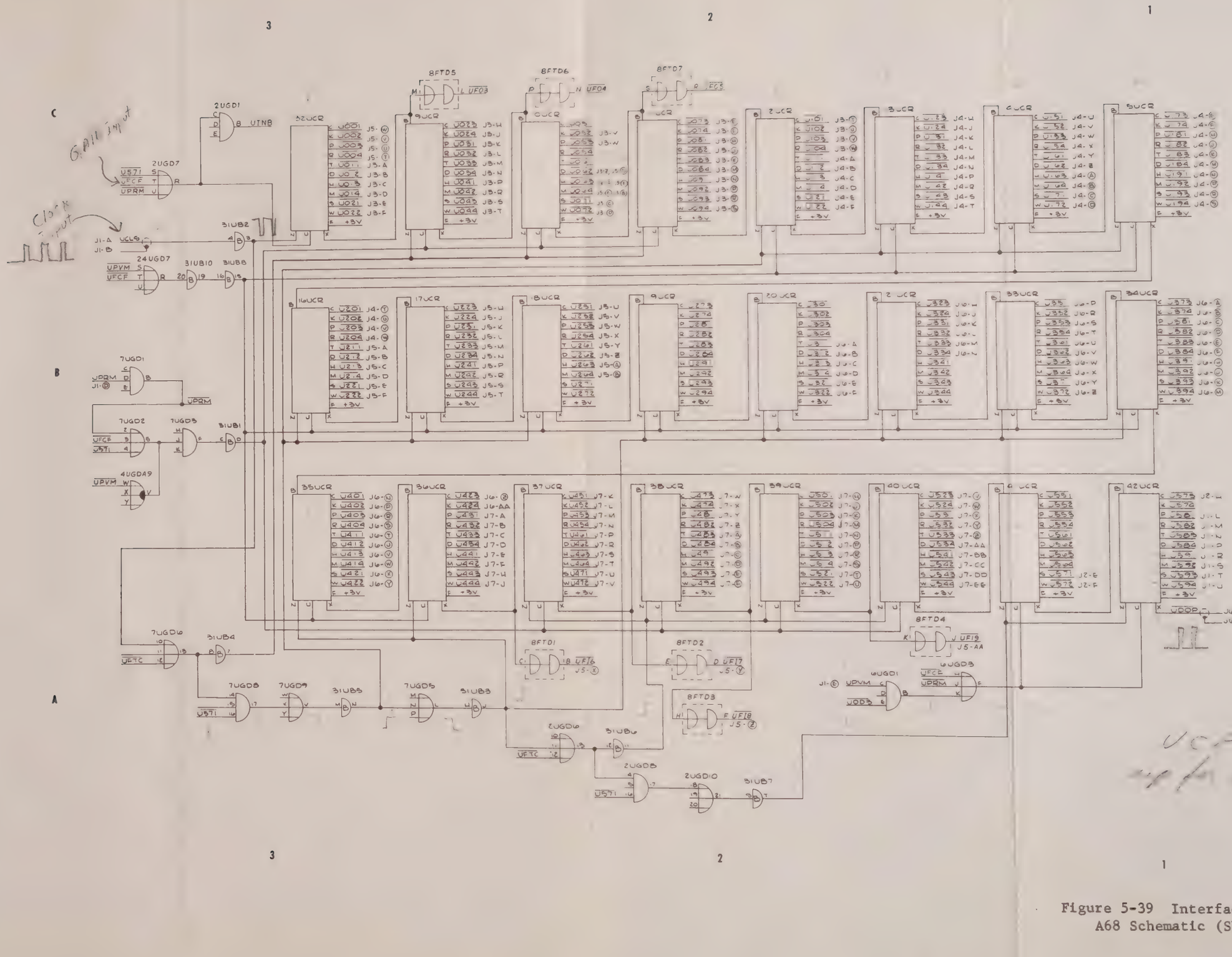


Figure 5-39 Interface Logic Module A68 Schematic (Sheet 1 of 3)

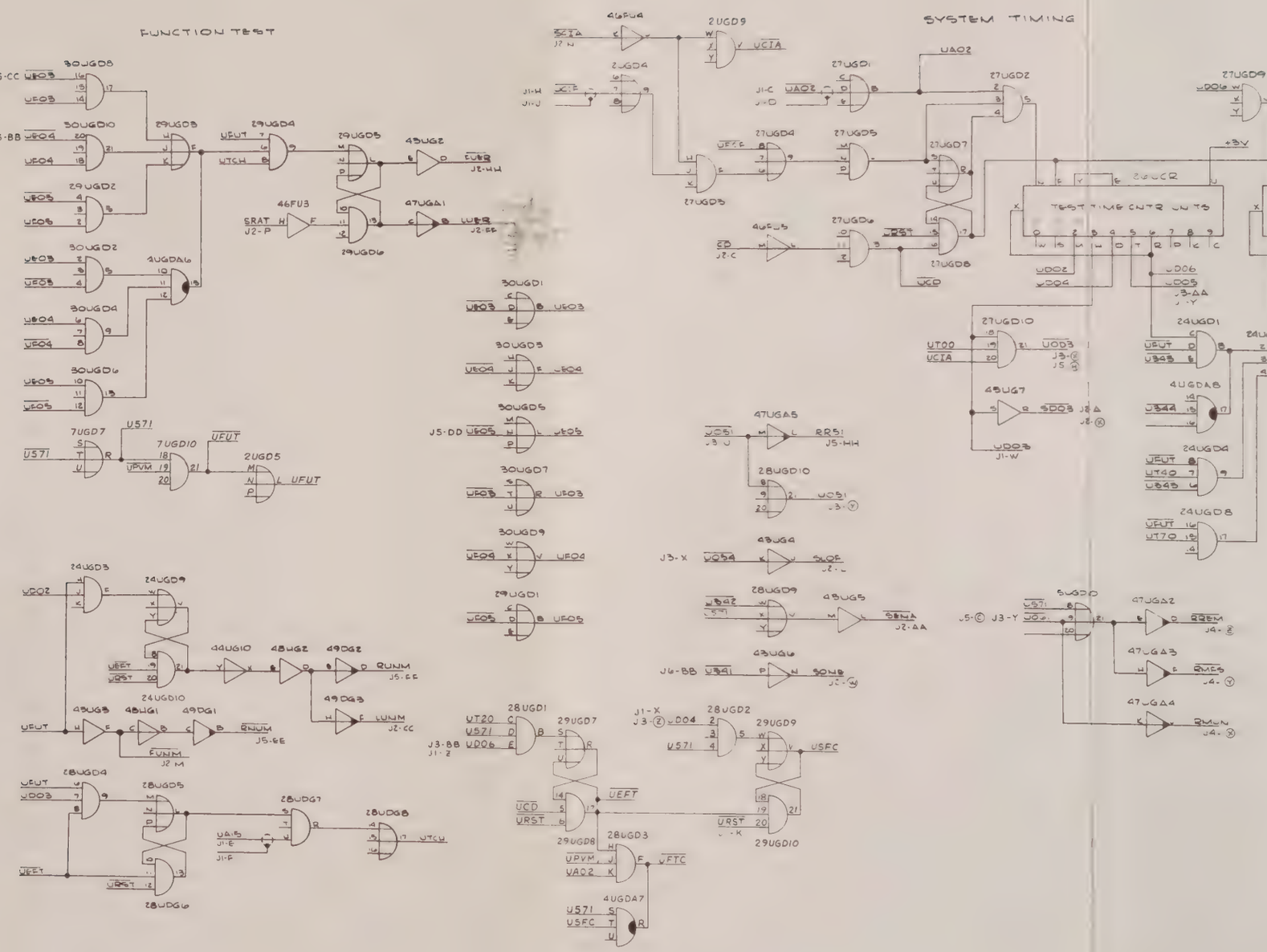


Figure 5-39 Interface Logic Module A68 Schematic (Sheet 2 of 3)

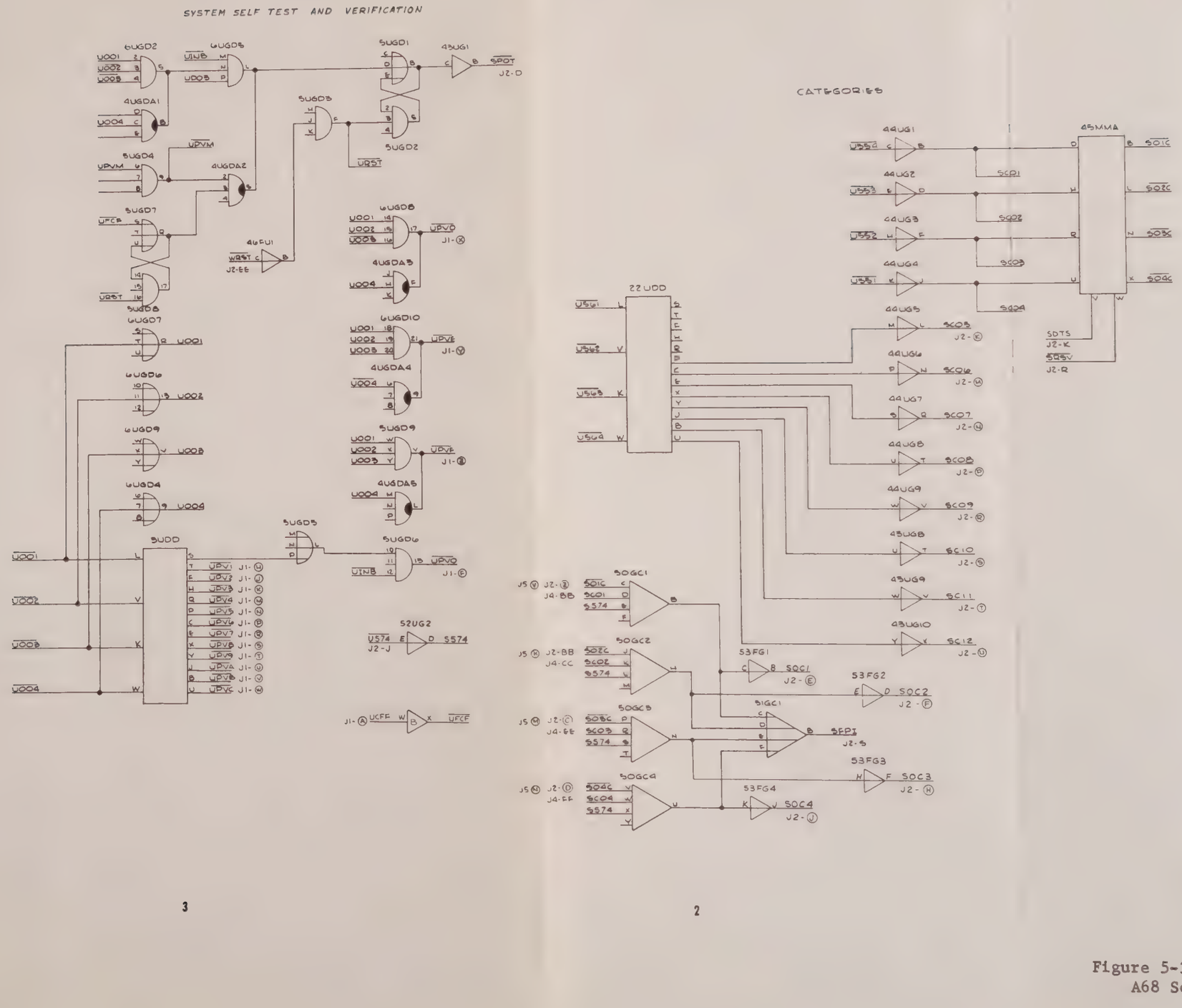
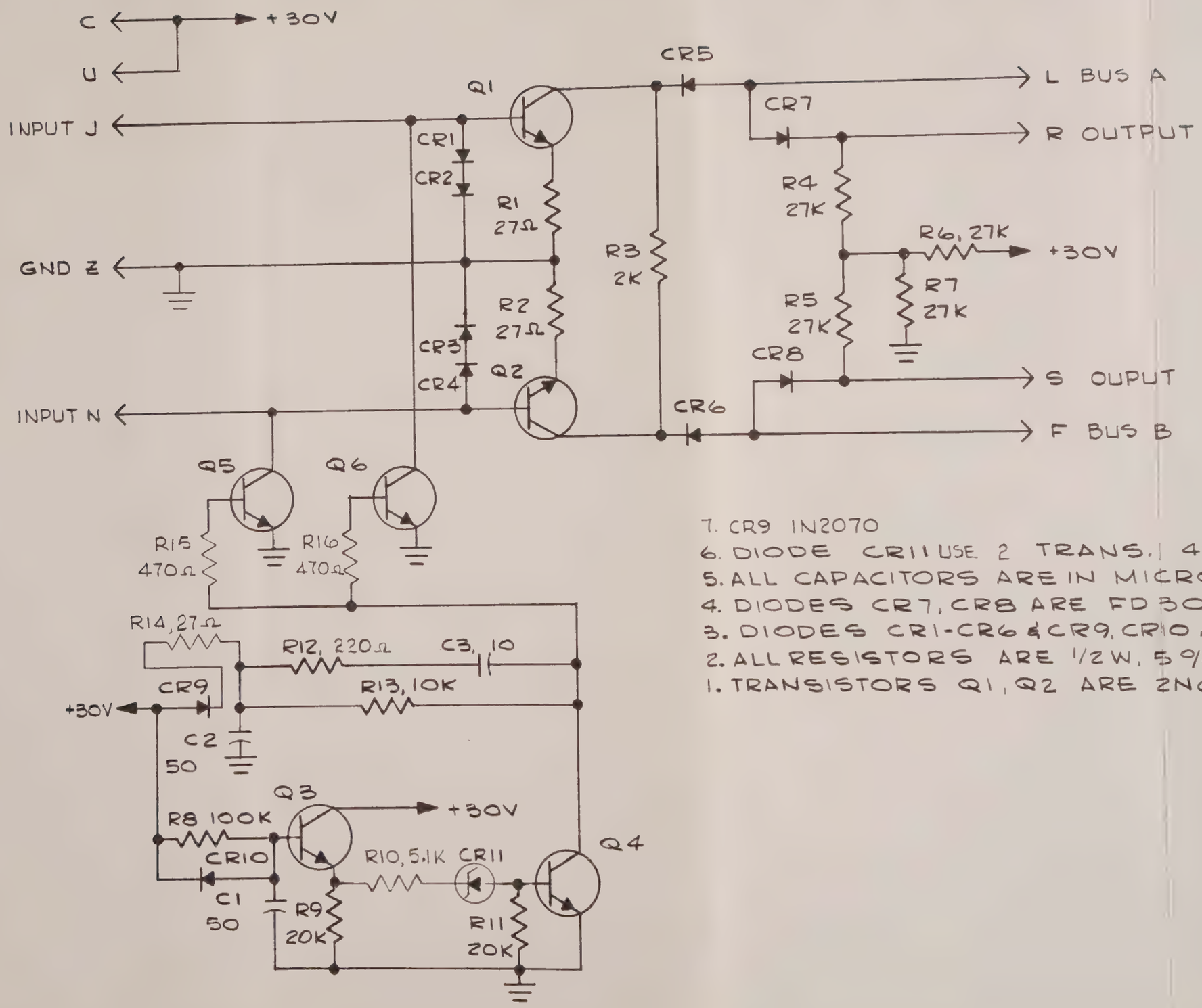
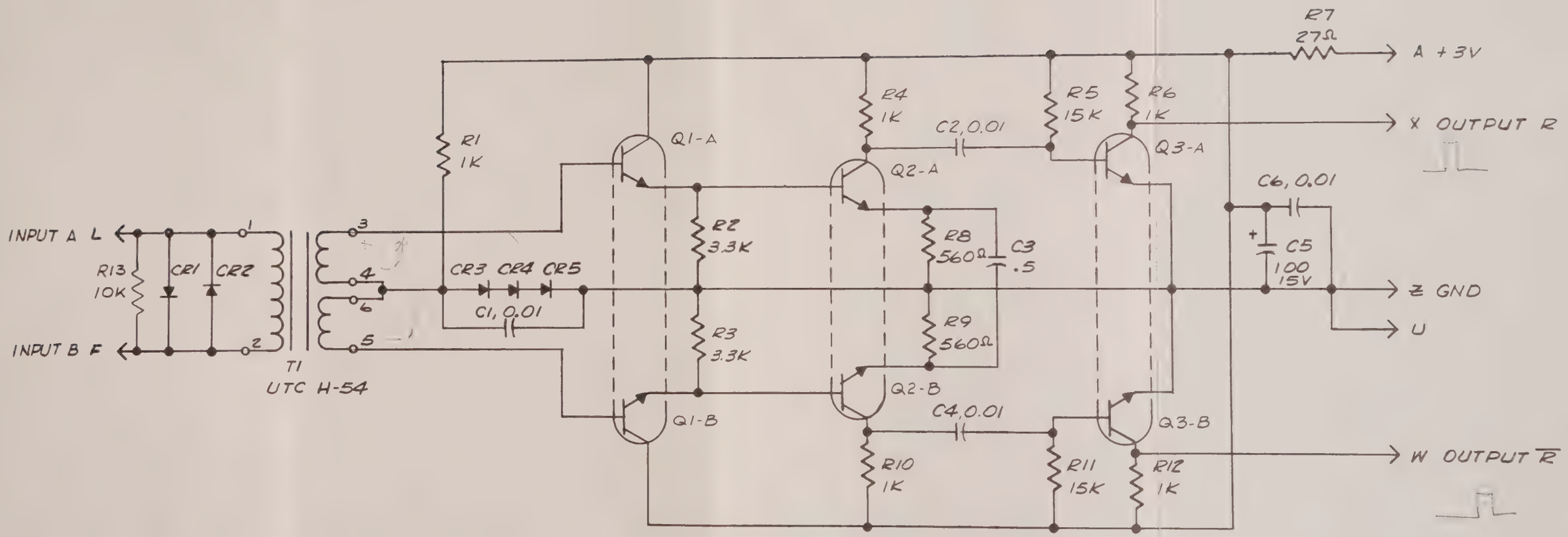


Figure 5-39 Interface Logic Module A68 Schematic (Sheet 3 of 3)



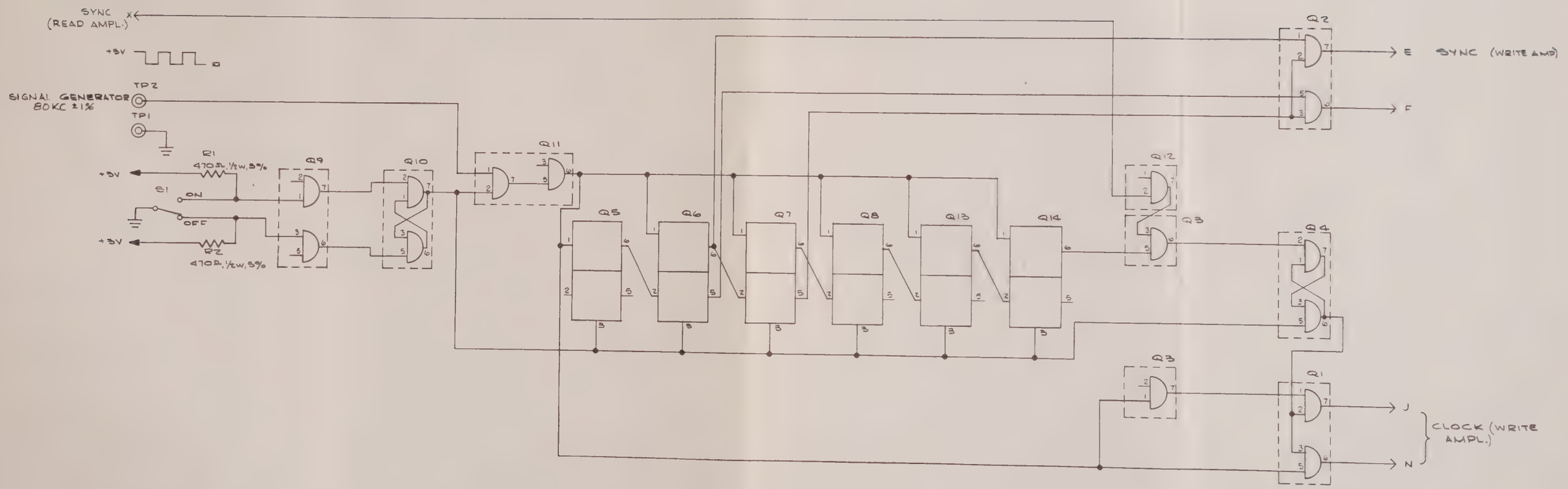
7. CR9 IN2070
6. DIODE CR11 USE 2 TRANS. | 4200HA
5. ALL CAPACITORS ARE IN MICROFARADS, 50V.
4. DIODES CR7, CR8 ARE FD300.
3. DIODES CR1-CR6 & CR9, CR10 ARE FD100.
2. ALL RESISTORS ARE 1/2W, 5%
1. TRANSISTORS Q1, Q2 ARE 2N699B. Q3-Q6 ARE ST494.

Figure 5-40 Write Amplifier Board Schematic



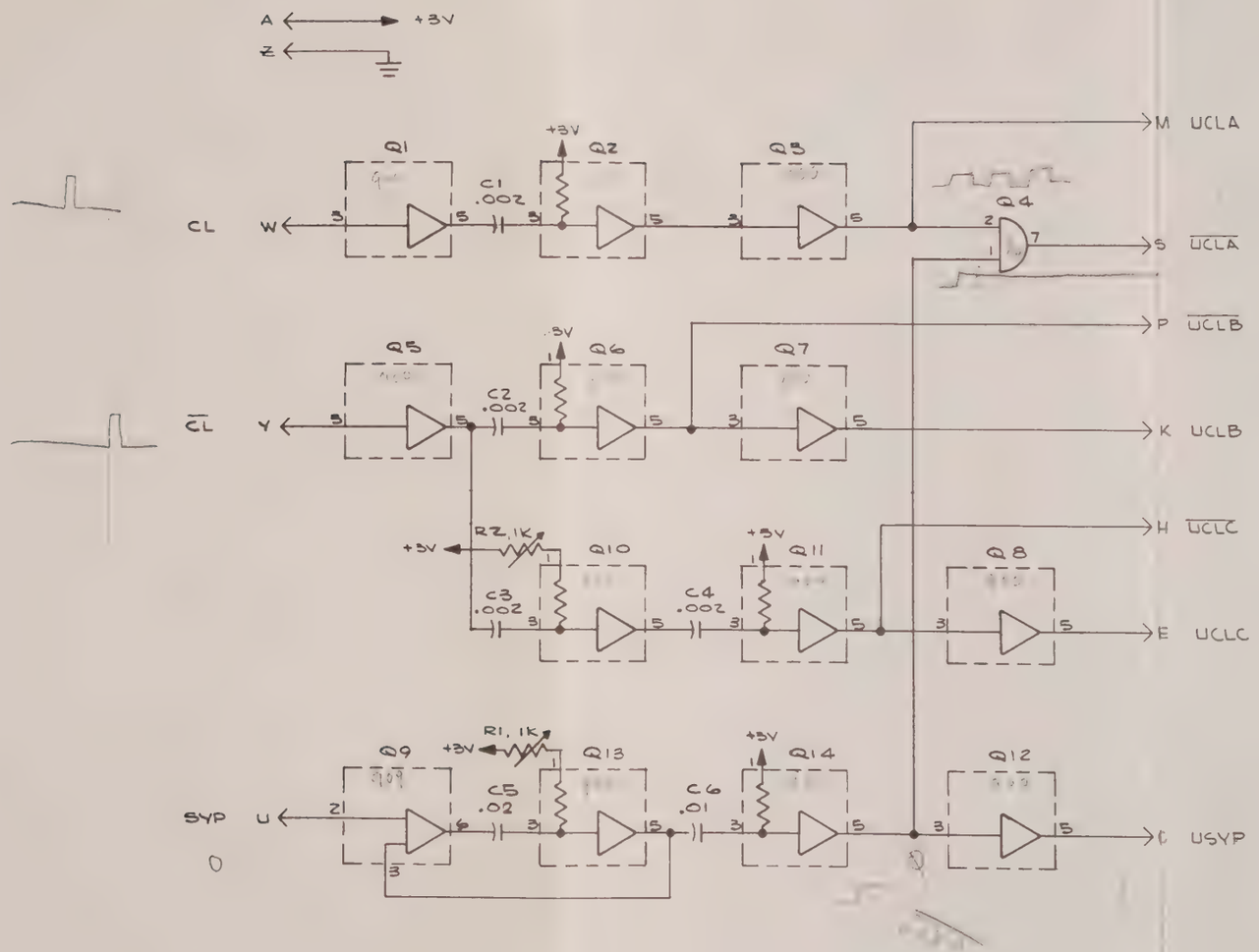
4. ALL CAP. ARE IN MICROFARADS, 50V
3. ALL DIODES ARE FD100
2. ALL RES. ARE 1/2W, 5%
1. ALL TRANS. ARE 2N2060

Figure 5-41 Read Amplifier Board Schematic



2. TIMING TRACK RECORDING PROCEDURE:
   a. ARRANGE P.C. CARDS AS SHOWN IN LOGIC DIAGRAM.
   b. SWITCH POWER ON (30V, 3V, MOTOR)
   c. SWITCH S1 OFF.
   d. SWITCH S1 ON.
   e. SWITCH POWER OFF.
   f. REARRANGE P.C. CARDS.
1. ELEMENTS: Q1-4, 9-12 ARE μL ELEMENT 914.
   Q5-8, 13, 14 ARE μL ELEMENT 913.

Figure 5-42 Clock Recording Board Schematic



2. ALL CAP. ARE IN MICROFARADS, 50V.
1. ELEMENTS, Q9 IS µL ELEMENT 909.
Q1-3, 5-8, 10-14 ARE µL ELEMENTS 900.
Q4 IS µL ELEMENT 914.

Figure 5-43 Timing Generator Module Schematic

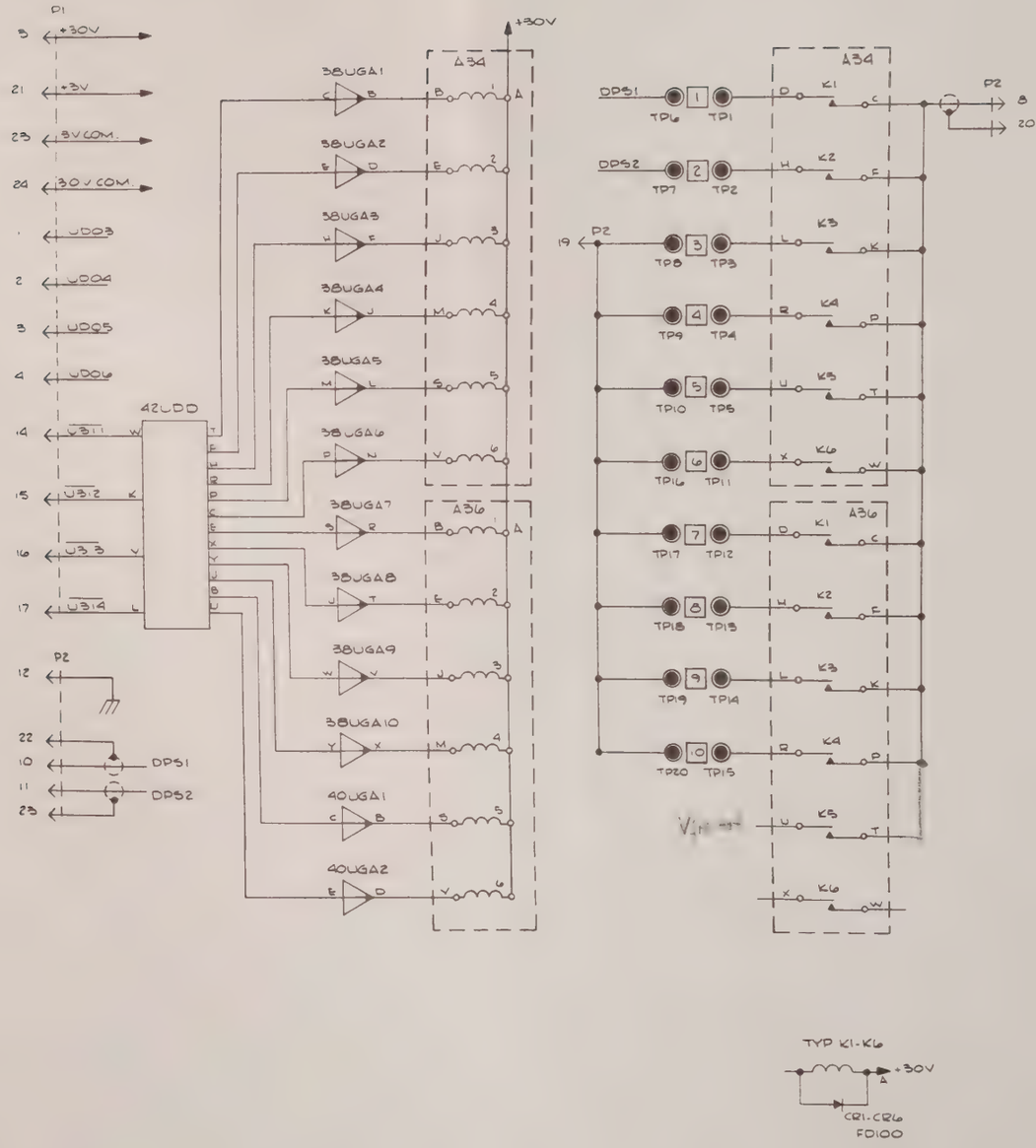


Figure 5-44 External Supply Plug-in Module A30 Schematic

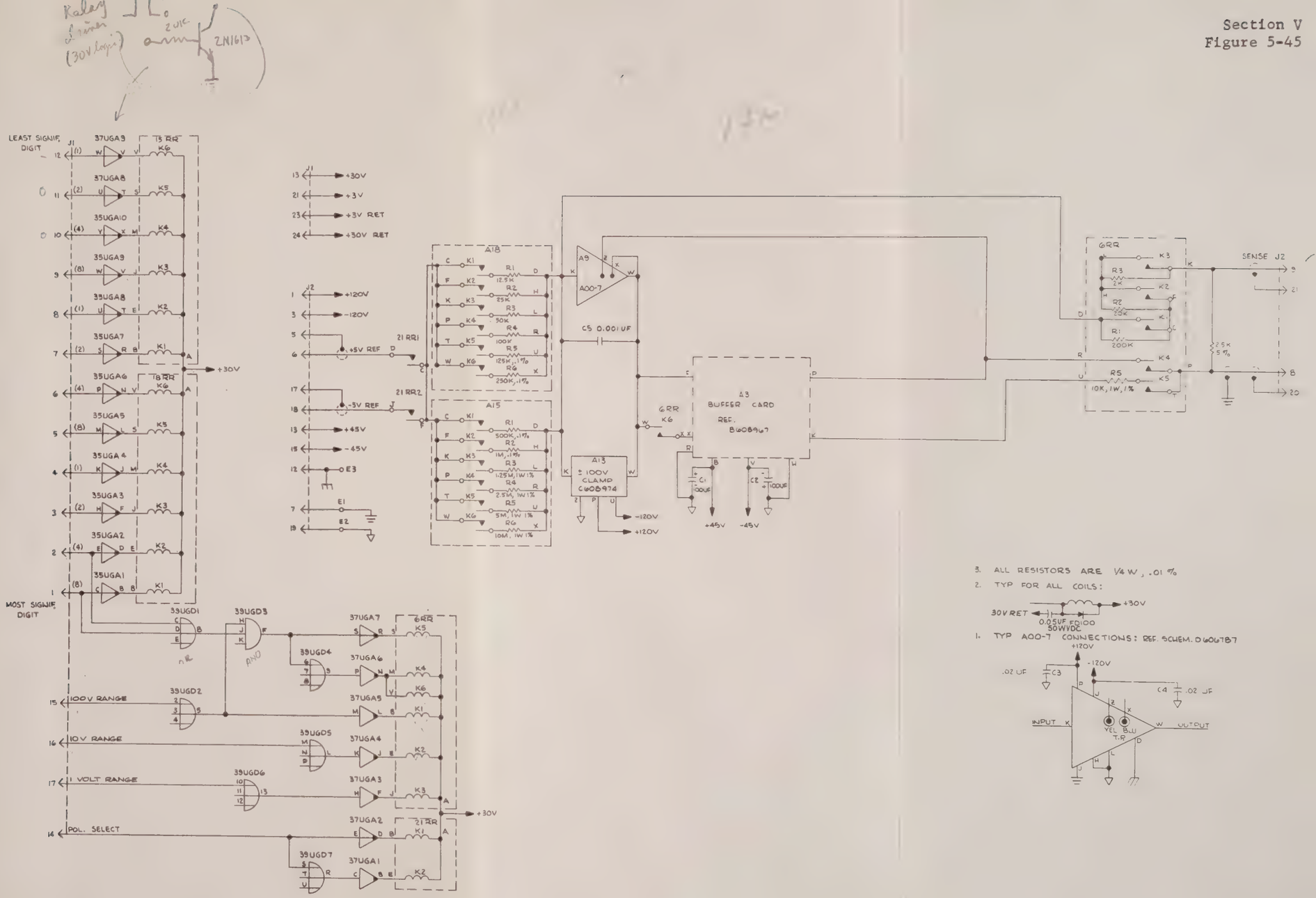
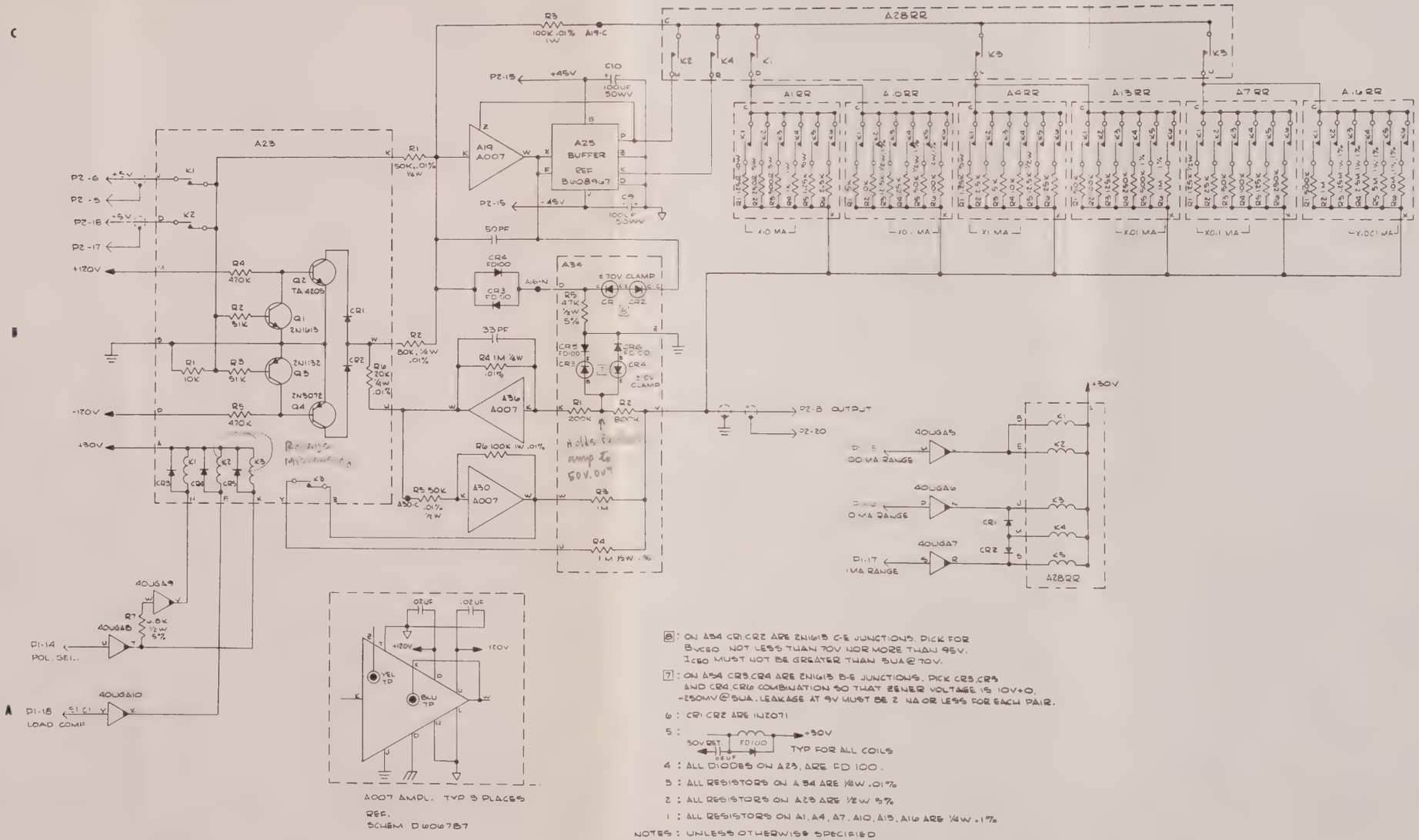


Figure 5-45 VF Supply Module A30 Schematic



[8] : ON A34 CR1,CR2 ARE 2N1613 C-E JUNCTIONS. PICK FOR BVCEO NOT LESS THAN 70V NOR MORE THAN 95V. ICEO MUST NOT BE GREATER THAN 5UA@70V.

[7] : ON A34 CR3,CR4 ARE 2N1613 B-E JUNCTIONS. PICK CR3,CR5 AND CR4,CR6 COMBINATION SO THAT ZENER VOLTAGE IS 10V+0, -250MV@5UA. LEAKAGE AT 9V MUST BE 2 NA OR LESS FOR EACH PAIR.

6 : CR1 CR2 ARE 1N2071

5 : +30V, 30V RET., FD100, .06 UF — TYP FOR ALL COILS

4 : ALL DIODES ON A23, ARE FD 100.

3 : ALL RESISTORS ON A34 ARE 1/8W .01%

2 : ALL RESISTORS ON A23 ARE 1/2W 5%

1 : ALL RESISTORS ON A1, A4, A7, A10, A13, A16 ARE 1/8W .1%

NOTES : UNLESS OTHERWISE SPECIFIED

Figure 5-46 I_F (Constant Current) Plug-in Module A30 Schematic (Sheet 1 of 2)

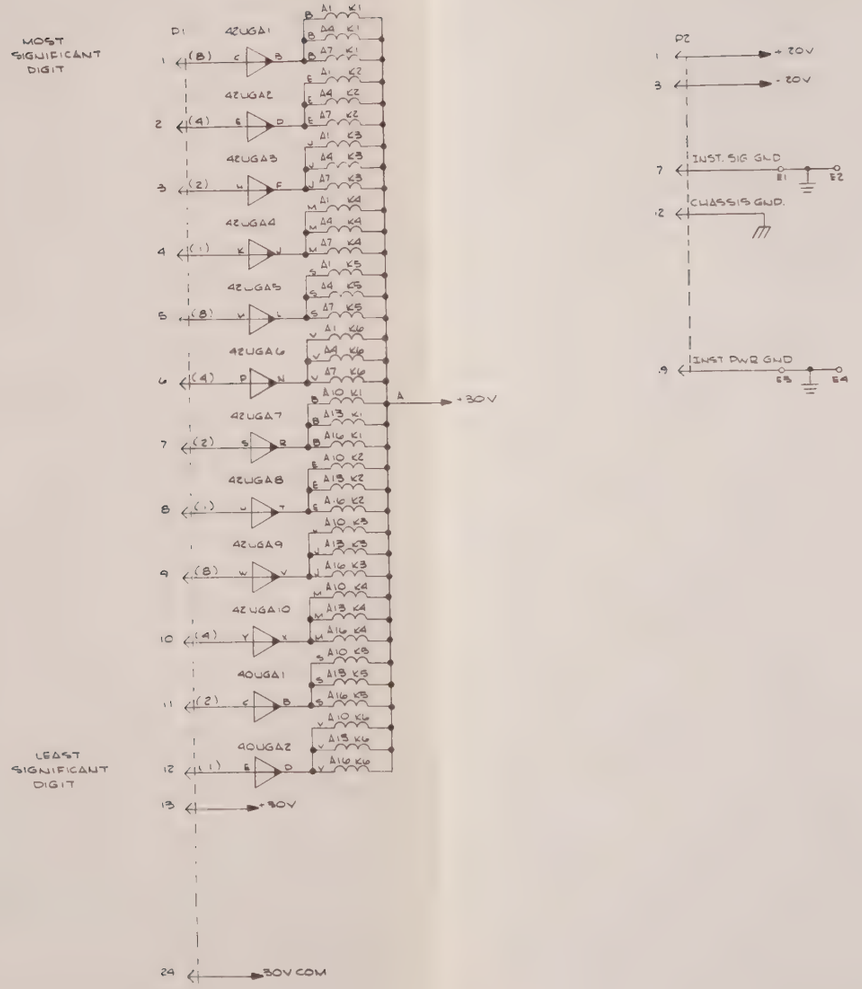
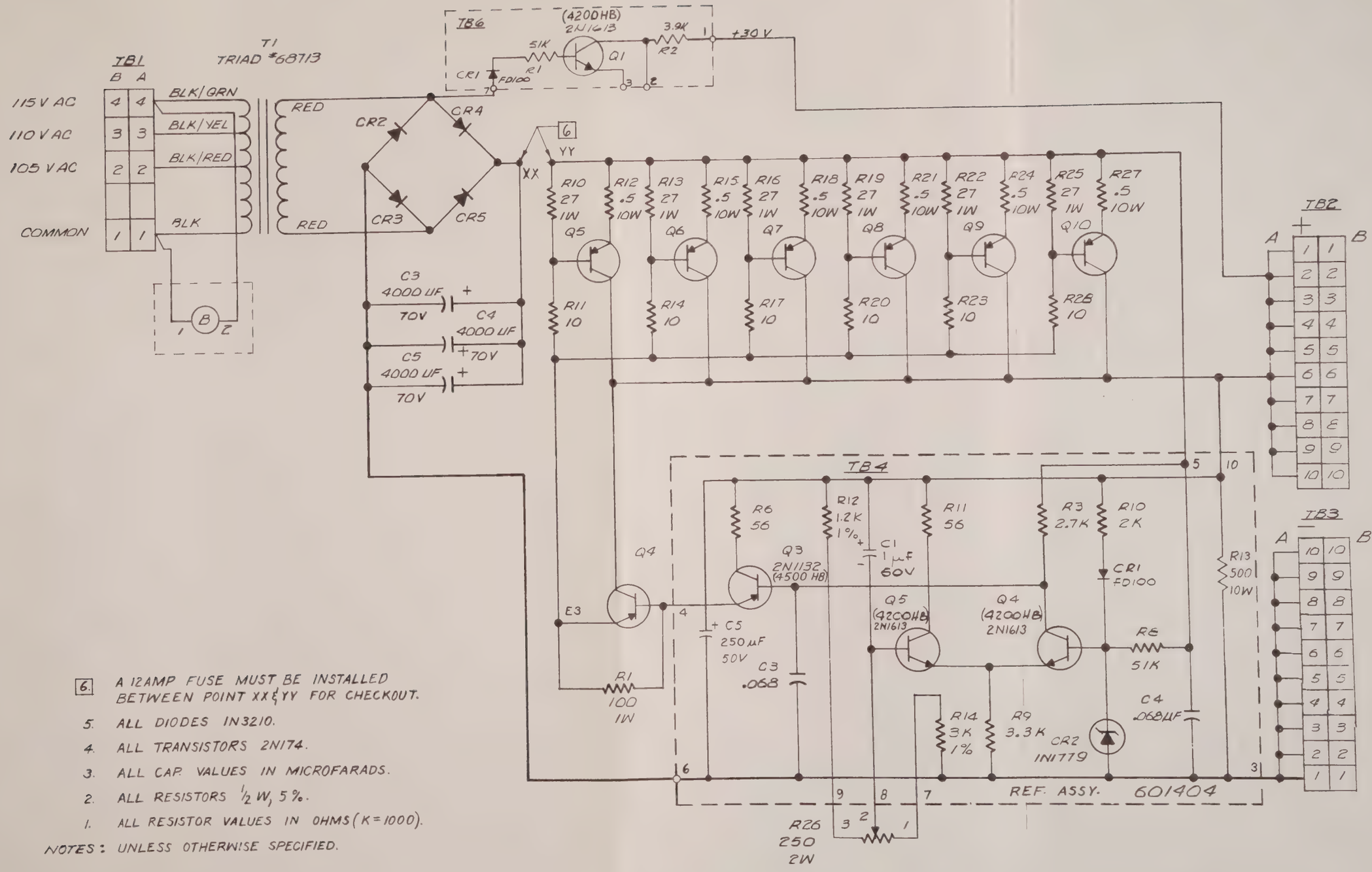


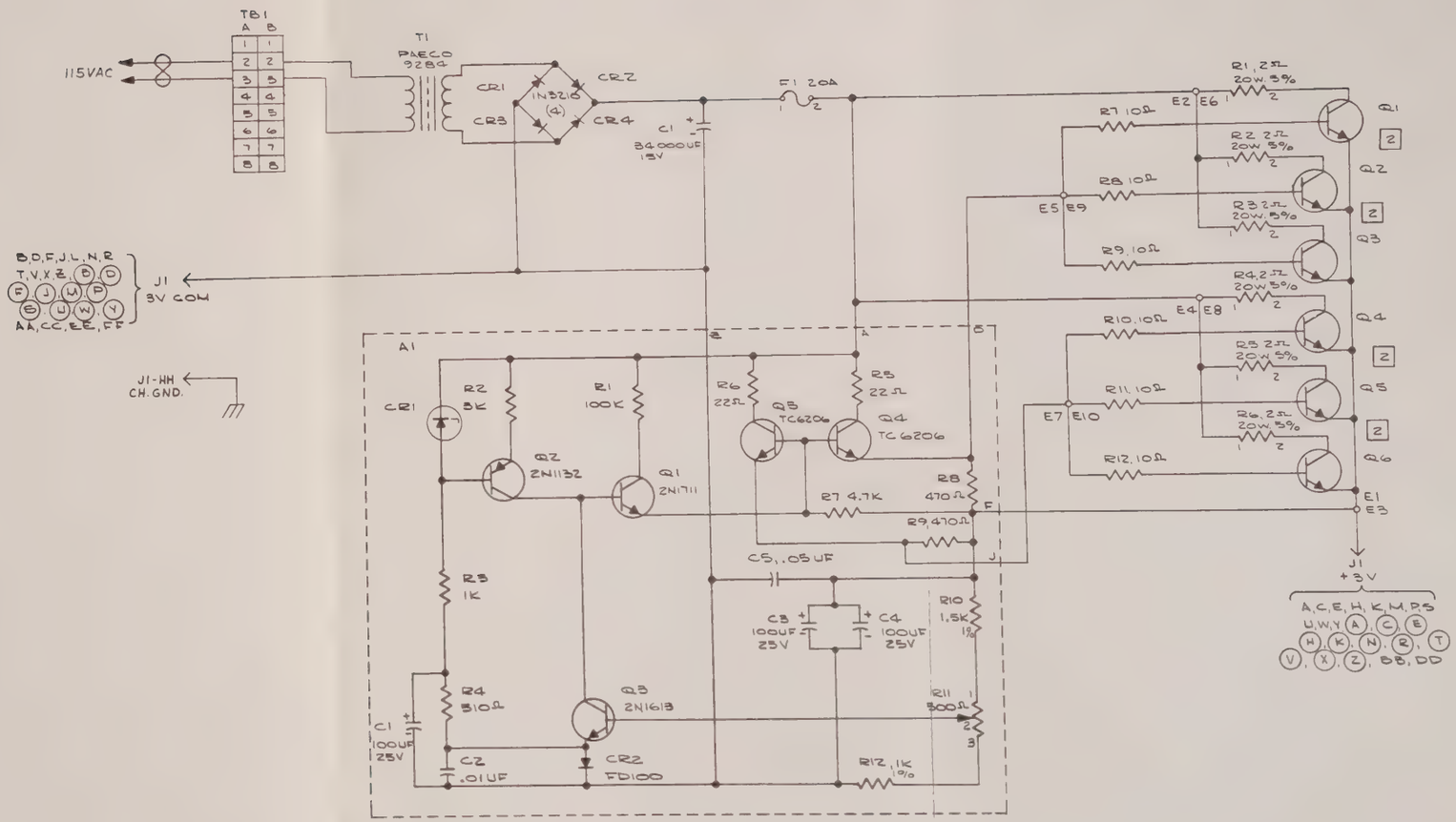
Figure 5-46 I_F (Constant Current) Plug-in Module A30 Schematic (Sheet 2 of 2)



6. A 12AMP FUSE MUST BE INSTALLED BETWEEN POINT XX & YY FOR CHECKOUT.
5. ALL DIODES IN3210.
4. ALL TRANSISTORS 2N174.
3. ALL CAP. VALUES IN MICROFARADS.
2. ALL RESISTORS ½ W, 5 %.
1. ALL RESISTOR VALUES IN OHMS (K=1000).

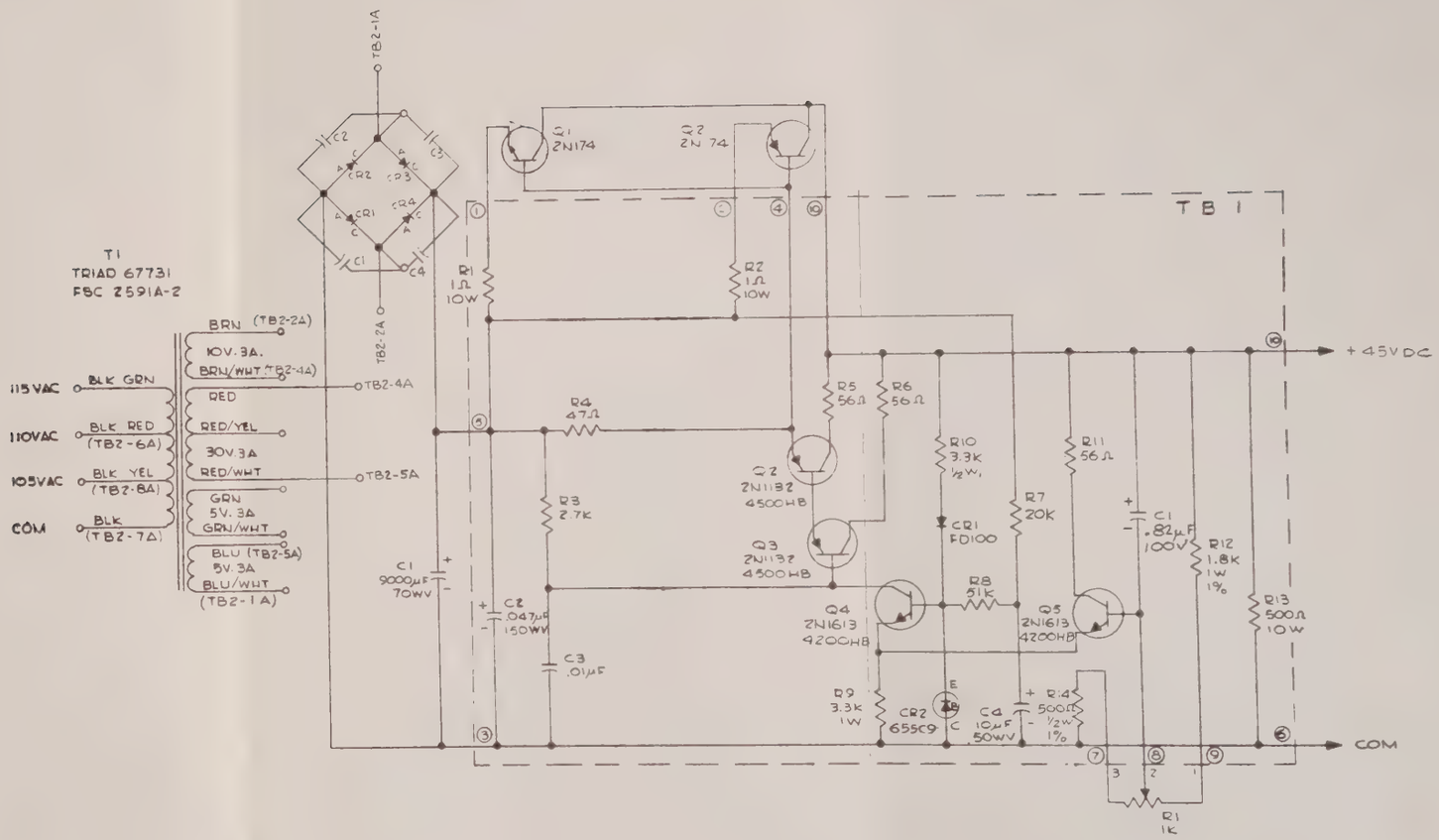
NOTES: UNLESS OTHERWISE SPECIFIED.

Figure 5-47 +30 Volt Power Supply Schematic



[2] TRANSISTOR, Q1-Q6 ARE TP6206
1. ALL RESISTORS ARE 1/2W, 5%.

Figure 5-48 +3 Volt Power Supply Schematic



2. CAPACITORS: C1-C4 ARE 0.1µf 200V
1. DIODES CR1-CR4 ARE IN250A OR IN3210

Figure 5-49 ±45 Volt Power Supply Schematic

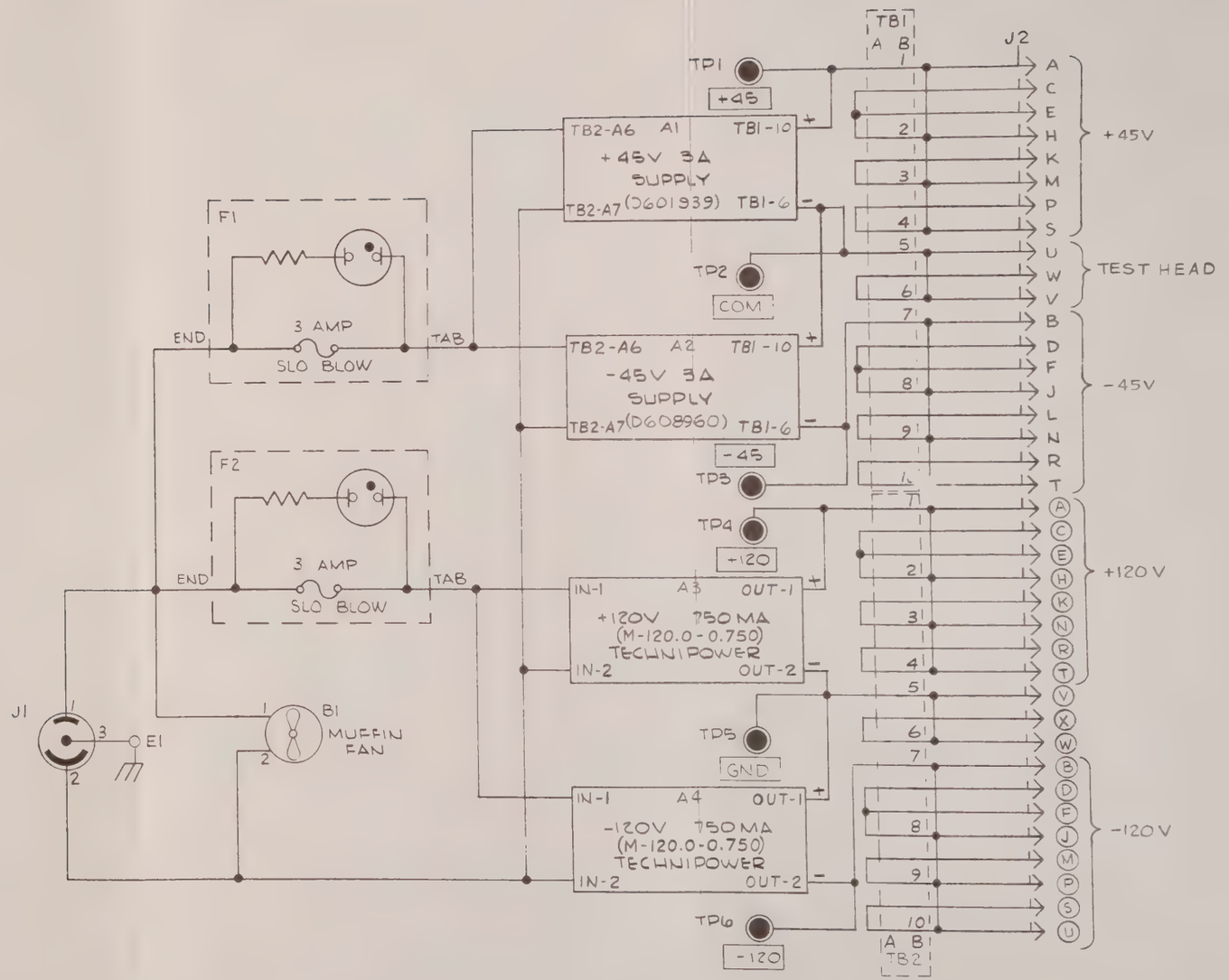


Figure 5-50 ±45 Volt and ±120 Volt Power Supply Schematic

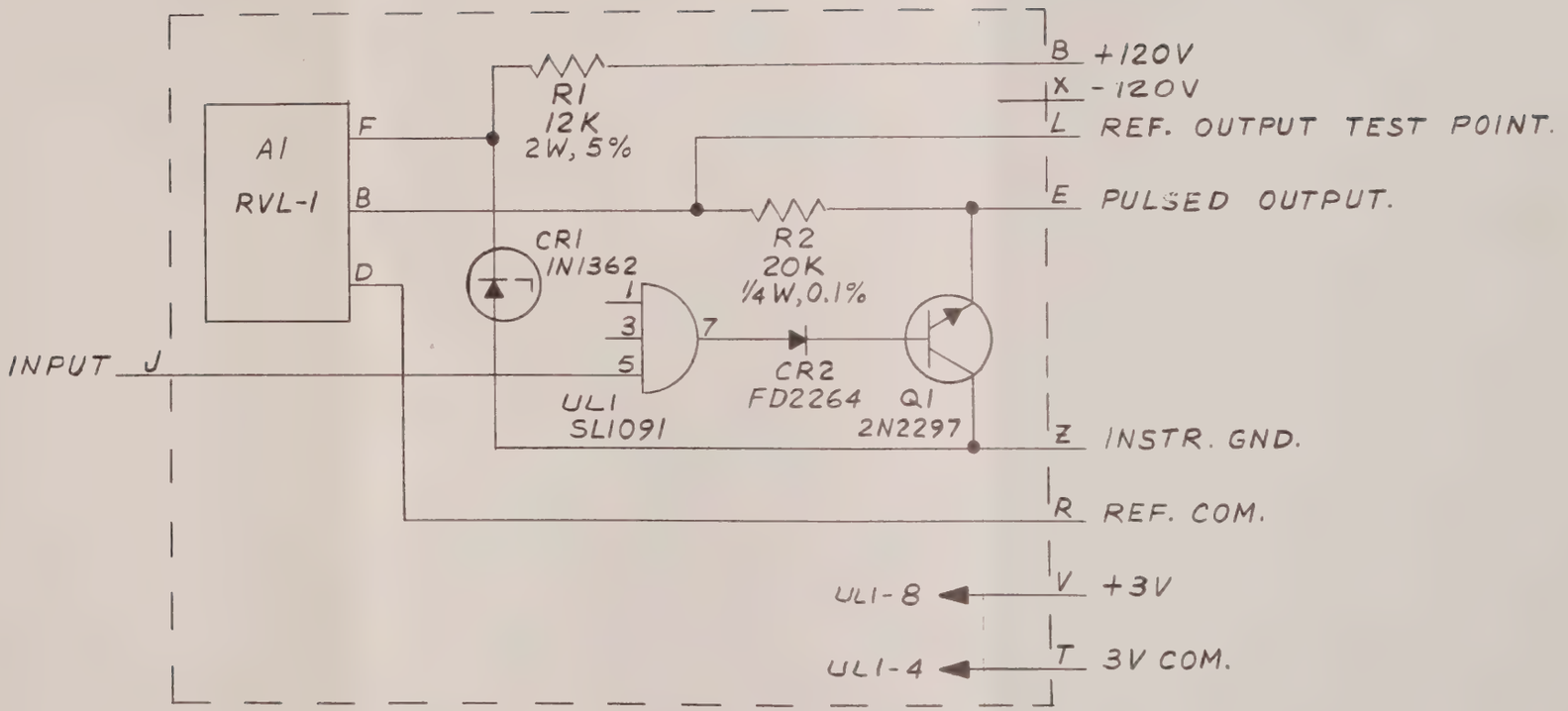


Figure 5-51 Pulsed Reference Board Schematic

TEST NUMBER (INCREMENTS BY 1 FOR EACH TEST)	PASS/FAIL CONTROL	GO/NO GO LIMIT				MEASURE MODE	MEASURE RANGE	VE MEASURING				DEVICE PIN NUMBERS																						EXT. LINE			PULSE DATA LOG TEST TIME	DIGITAL PROGRAMMED POWER SUPPLIES (DPS)																PASS CAT.	REJ CAT.	TEST SEQ CONTROL	NEXT TRACK	
		MOST SIGNIFICANT	2ND	3RD	LEAST SIGNIFICANT DIGIT			FIRST SIGNIFICANT	2ND	3RD	POL AND RANGE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	4	5	6		PS LINE 1 FIRST SIGNIF	PS LINE 1 2ND SIGNIF	PS LINE 1 3RD SIGNIF	PS LINE 1 POL AND RANGE	PS LINE 2 FIRST SIGNIF	PS LINE 2 2ND SIGNIF	PS LINE 2 3RD SIGNIF	PS LINE 2 POL AND RANGE	PS LINE 7 FIRST SIGNIF	PS LINE 7 2ND SIGNIF	PS LINE 7 3RD SIGNIF	PS LINE 7 POL AND RANGE	PS LINE 8 FIRST SIGNIF	PS LINE 8 2ND SIGNIF	PS LINE 8 3RD SIGNIF	PS LINE 8 POL AND RANGE	PS LINE 9 FIRST SIGNIF	PS LINE 9 2ND SIGNIF	PS LINE 9 3RD SIGNIF	PS LINE 9 POL AND RANGE				
		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
1	9																																																													
2	9																																																													
3	9																																																											
4	9																																																											
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17	9																																																											
18	9																																																											
19	9																																																											
20	9																																																											

TEST NO	TEST TITLE	TEST SYMB.	DEVICE PIN NUMBER																		TEST LIMITS	UNITS	PASS CAT.	REJ. CAT.	INH. DATA LOG	TEST TIME
			1	2	3	4	5	6	7	8	9	0	11	2	3	14	5	6						
1																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								
15																								
16																								
17																								
18																								
19																								
20																								

FUNCTIONAL TEST	PIN __ PROGRAM 6			PIN __ PROGRAM 7		PIN __ PROGRAM 8			PIN __ PROGRAM 9	
CHARACTER	45	46	47	48	49	50	51	52	53	54
FUNC. INPUT BITS										

FUNCTIONAL TEST	PIN __ PROGRAM 3			PIN __ PROGRAM 4		PIN __ PROGRAM 5			
CHARACTER	02	03	04	05	06	07	08	09	
FUNC. INPUT BITS									

FAIRCHILD SEMICONDUCTOR

SERIES 4000M PROGRAMMING CHART

SCALE | DWG | D | SIZE

Figure 5-52 Programing Instructions

SECTION VI
REPLACEABLE PARTS

6-1. GENERAL

6-2. Table 6-1 contain information for ordering replacement parts, listing; description, manufacturer, and Fairchild Semiconductor Corporation part number.

6-3. Table 6-1 is a spare parts list of components which experience show might be expected to require replacement. Not included are components readily available such as 5% resistors, 20% capacitors, etc. The suggested quantities are based on two years nominal operation - approximately 360 hours a month.

6-4. Prices quoted are in effect at the time of publication of this manual, but are subject to change without notice. Consult the factory for firm quotations.

6-5. ORDERING INFORMATION

6-6. To order a replacement part, address order to your authorized Fairchild Semiconductor Corporation sales representative or to: 844 Charleston Ave., Palo Alto, California.

Table 6-1 Replaceable Parts

Description	Fairchild Semiconductor Part No.	Total Used	Recommended Spares	Unit Price
Amplifier, A-007	6905-21		1	$195.00
↓ Read	C608175		1	52.00
Amplifier, Write	B608173		1	45.00
Board, plug-in, buffer A3	D608927		1	80.00
buffer A25	C608638			
buffer A46				
1 amp	B608967			
clamp ±100 v	6089-17		1	56.00
Logic, type DG	6020-14		1	90.00
Logic, type EG	6020-15		1	80.00
Board, plug-in, Logic, type FG	6020-16		1	80.00

Table 6-1 Replaceable Parts (Cont)

Description	Fairchild Semiconductor Part No.	Total Used	Recommended Spares	Unit Price
Board, plug-in, Logic, type GBA	6020-19		1	80.00
Logic, type GCA	6020-20		1	80.00
Logic, type GB	6020-17		1	80.00
Logic, type GC	6020-18		1	80.00
Logic, type GBB	6020-39		1	90.00
Logic, type GCB	6020-40		1	80.00
Logic, type HG	6020-21		1	90.00
Logic, type LG	6020-25		1	85.00
Logic, type FU			1	80.00
Logic, type UG	6023-53		1	90.00
Logic, type UGA	6023-52		1	95.00
Logic, type BC/BCA	6020-01 6020-41		1	90.00
Logic, type MMA/MMB	6020-42		1	80.00
Logic, type SD	6020-00		1	80.00
Logic, type FTD	6089-04		1	120.00
Logic, type UCR	6020-56		1	130.00
Logic, type UDD	6020-57		1	110.00
Logic, type UGB	6020-59		1	95.00
Logic, type UB	6020-61		1	95.00
Logic, type UGD/UGDA	6020-60		1	100.00
Board, plug-in, Logic, type RRA/RRB (relay)	6020-27		1	100.00
Connector, pin (Gorn AWG male)	6949-35		10	.10
(Gorn AWG female)	6949-36		10	.10
Connector, 22 pin (for logic)	6120-17		1	3.00
Diode, FD100	5151-37		5	6.90
Diode, 1N2071	5150-15		2	2.00
Fuse, 6A SLO-BLO	5700-48		20	.20
Fuse, 12 A SLO-BLO	5700-25		20	.40

Table 6-1 Replaceable Parts (Cont)

Description	Fairchild Semiconductor Part No.	Total Used	Recommended Spares	Unit Price
Lamp, Indicator (GE327)	5800-07		30	.70
Micrologic Elements, 900	5152-59		5	3.75
901	5152-60		5	36.10
907	5152-64		5	18.00
909	5152-62		5	21.80
913	5152-63		5	50.00
914	5152-58		5	20.70
Micrologic Elements, 903	5152-61		5	15.00
Module, Clock Recording	C608196		1	135.00
Power Supply, ±120 volt			0	1300.00
Power Supply, 3 volt	6088-23		0	200.00
Resistor, fixed, 10 M, ±0.1%, 1/4 w	5213-64			
5 M, ±0.1%, 1/4 w	5218-91			
2.5 M, ±0.1%, 1/4 w	5218-90			
1.25 M, ±0.1%, 1/4 w	5218-89			
1 M, ±0.1%, 1/4 w	5217-44			
500 K, ±0.1%, 1/4 w	5217-41			
250 K, ±0.1%, 1/4 w	5217-54			
125 K, ±0.1%, 1/4 w	5217-53			
100 K, ±0.1%, 1/4 w	5217-33			
60 K, ±0.1%, 1/4 w	5217-31			
50 K, ±0.1%, 1/4 w	5217-30			
40 K, ±0.1%, 1/4 w	5217-28			
25 K, ±0.1%, 1/4 w	5218-57			
12.5 K, ±0.1%, 1/4 w	5217-65			
10 K, ±0.1%, 1/4 w	5217-22			
5 K, ±0.1%, 1/4 w	5217-19			
Resistor, fixed, 2.5 K, ±0.1%, 1/4 w	5217-51			

Table 6-1 Replaceable Parts (Cont)

Description	Fairchild Semiconductor Part No.	Total Used	Recommended Spares	Unit Price
Resistor, fixed, 1.25 K, ±0.1%, 1/4 w	5218-09			
1 K, ±0.1%, 1/4 w	5217-76			
500 Ω, ±0.1%, 1/4 w	5218-04			
250 Ω, ±0.1%, 1/4 w	5218-08			
125 Ω, ±0.1%, 1/4 w	5219-41			
250 Ω, ±0.1%, 5 w	5218-08			
125 Ω, ±0.1%, 10 w	5219-41			
10 M, ±1%, 1/4 w	5211-94			
5 M, ±1%, 1/4 w	5211-92			
2.5 M, ±1%, 1/4 w	5213-28			
1.25 M, ±1%, 1/4 w	5213-26			
100 K, ±1%, 1/2 w	5211-19			
50 K, ±1%, 1/2 w	5211-09			
1 M, ±1%, 1/4 w	5211-49			
500 K, ±1%, 1/4 w	5211-39			
12.5K, ±1%, 1/4 w	5209-64			
100 Ω, ±0.05%, 10 w	5219-39			
Resistor, fixed, 1 K, ±0.05%, 3 w	5219-47			
Transistor, 2N3072	5152-84		2	18.00
2N1613	5151-34		10	2.20
2N699	5152-80		2	2.64
TP6206 2N2893	5152-38		2	30.00
TA4205			2	
Transistor, TC6206 2N2891	5152-12		2	27.00
Timing Generator	C608129		1	75.00
Connectors, μ boards (keys F and H)	6120-		1	4.30

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MA29939